

**Caeronnen Wind Turbine,
Cwmsychbant, Llanybydder,
Ceredigion.**

Archaeological Appraisal



By

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ARCHAEOLOGICAL APPRAISAL

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Prepared for:

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On behalf of:

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Executive Summary

The following report presents the results of a rapid archaeological appraisal undertaken by Heritage Recording Services Wales (HRS Wales), for a proposed single small scale wind turbine on land attached to Caeronnen Farm, Cwmsychbant, Ceredigion, centered on OS grid reference SN 4840 4530.

The wind turbine will have a maximum overall height to blade tip of 36.6m. Construction and maintenance of the turbine will require a 100m length of temporary access track across a field, extending an existing agricultural farm track. Construction of the turbine will require a concrete foundation, which will measure approximately 9.1m x 9.1m x 2m and will be installed within a 2/3 day period using a small tracked excavator. The proposed service cable trench from the turbine will run parallel with the temporary access track and then run southwest along the existing farm track and connect to the National Grid via a control cabinet.

Following consultation by HRS Wales with Dyfed Archaeological Trust (DAT), it was agreed that the archaeological dimension would include a rapid archaeological appraisal of all undesignated sites up to a 2km radius from the proposed turbine location and all designated sites up to a 5km radius. A Project Specification was submitted and approved by DAT on the 14th October 2015.

In summary, the desk based appraisal and site visit identified no direct physical effects from the proposal on any known heritage asset. However, the primary HER database records have shown that there is an Iron Age Defended Enclosure close to the site (Clawdd Buarth Defended Enclosure – PRN: 8215) only 520m to the east-south-east. The database records also show that the immediate landscape may have been party to a battle in the 10th century. However, the character and exact location of this battle is uncertain. Given these considerations, it is advised that any groundwork undertaken for the proposed development i.e. the turbine foundation and service cable trench is undertaken under an archaeological watching brief condition.

The appraisal also concluded that none of the undesignated sites of schedulable quality and designated sites, SAMs, LBs or Parks & Gardens within the appraised 5km radius, will be significantly indirectly affected by the proposed turbine on land at Caeronnen Farm.

With regards to potential cumulative effects, the only wind turbine that could potentially have a cumulative effect on one designated heritage asset within the 5km radius of the proposed turbine at Caeronnen Farm will be the operational turbine at Tanrhos. This turbine is positioned approximately 6.1km northwest of Pen y Gaer Hillfort (SAM Ref: CM101) and the proposed turbine at Caeronnen Farm will be positioned approximately 4.3km to the northwest as well. However, given these distances, topographic considerations and intervening landscape components, it is considered that the combined cumulative effect of this turbine with the proposed turbine at Caeronnen on this heritage asset will be of Negligible magnitude and therefore of only Minor significance and only last the lifetime of the turbines.

1 Introduction

- 1.1 The following report presents the results of a rapid archaeological appraisal undertaken by Heritage Recording Services Wales (HRS Wales), for a proposed single small scale wind turbine on land attached to Caeronnen Farm, Cwmsychbant, Ceredigion, centered on OS grid reference SN 4840 4530.
- 1.2 The specific objectives of the assessment were to:
- Identify the cultural heritage baseline within and in the immediate vicinity of the proposed turbine;
 - Consider the application site in terms of its archaeological and historic environment potential;
 - Assess the potential and predicted effects of the construction and operation and decommissioning of the turbine on the baseline cultural heritage resource within the context of relevant legislation and planning policy guidelines; and
 - Propose measures, where appropriate, to mitigate against any predicted significant adverse effects.
- 1.2 The assessment comprised two main elements:
- i) An archaeological appraisal of all Historic Environment Record (HER) sites within a 2km radius from the proposed turbine position and a site visit of the application area.
 - ii) Direct and In-direct Assessment of predicted effects on all designated High Value sites (Scheduled Ancient Monuments, Listed Buildings, Parks and Gardens, Conservation Areas and Registered Historic Landscapes) and undesignated of schedulable quality within the application area and within a 5km radius.
- 1.3 The Technical Appendices for this Chapter contains the following information:
- *Appendix I:* Figures;
 - *Appendix II:* Photographs and photomontage;
 - *Appendix III:* Gazetteer of all known HER sites up to 2km radius and all designated sites and undesignated High Value sites up to 5km radius from proposed turbine location.
- 1.4 The assessment entailed a site visit and an appraisal of all readily available primary historical and archaeological documentary sources for the immediate application area and an appraisal focusing on the indirect effect of the proposed turbines on the setting of designated sites (Scheduled Ancient Monuments, Listed Buildings, Parks & Gardens, Conservation Areas and Registered Historic Landscapes) and undesignated high value sites within a 5km radius from the position of the proposed turbine. The study of the application area assessed the direct and indirect impact of the proposed development on known heritage assets and also the potential for hitherto unknown heritage assets. It also appraised the known heritage assets within a 2km radius of the proposed application area, in order to inform the assessment of the application area, in accordance with Welsh Office Circulars 60/95 and 60/96, '*Planning and the Historic Environment: Archaeology*'.
- 1.5 All works were undertaken in accordance with the ClfA's Standards and guidance: for an

archaeological desk based assessment.

The site

- 1.6 The proposed wind turbine is to be positioned in an upland area at a height of approximately 265m AOD. The proposed turbine location is at NGR: SN 4840 4530 (to within approximately 10 meters), approximately 3.7km northwest of the town of Llanybydder, and approximately 1km west of the village of Llanwenog in the county of Ceredigion.
- 1.7 The turbine is to be positioned in an area of pasture, currently used for cattle grazing. The site is in a relatively open location, with field boundaries generally formed by low hedgerow, wire fencing with occasional copses. The total area of the proposed development is 0.14 hectares, consisting of a turbine foundation, hard-standing, control and grid cabinets, an underground cable and a 120m long temporary extension access track. The study area (red line boundary) covers approximately 53 hectares.
- 1.8 The wind turbine will have a maximum overall height to blade tip of 36.6m. Construction and maintenance of the turbine will require a 100m length of temporary access track across a field, extending an existing agricultural farm track. Construction of the turbine will require a concrete foundation, which will measure approximately 9.1m x 9.1m x 2m and will be installed within a 2/3 day period using a small tracked excavator. The proposed service cable trench from the turbine will run parallel with the temporary access track and then run southwest along the existing farm track and connect to the National Grid via a control cabinet.
- 1.9 The development site is not located within any Registered Historic Landscape (RHL), the nearest RHL being *Drefach and Felindre* (HLW (D) 10), which lies approximately 11km to the southwest. The proposed turbine will not be located within any Conservation Area (CA). The proposed turbine will not be within any Registered Park and Garden (P&G). The nearest P&G is *Maesycrugiau Hall* (PGW (Dy) 3(CAM)), which lies approximately 4.5km to the south and *Alltyrodyn* (PGW (Dy) 46(CER)), which lies only 3km to the west of the proposed turbine location. There are also no Scheduled Ancient Monuments (SAMs) or Listed Buildings (LBs) within the proposed development area.
- 1.10 However, within the 5km radius assessment area there are several other heritage assets, both designated and undesignated. Within the 5km radius there are three (3) Scheduled Ancient Monuments (SAMs), of which one is an Iron Age Hillfort (Pen y Gaer - CM101) and the other two are Medieval Norman mottes (Tomen Rhyd-Owen – CD076 and Castell Hywel – CD084). There are also 62 Listed Buildings (LBs), of which only four are Grade II* Listed and one has a Grade I Listing.

Geology

- 1.9 The geology of the application area is generally of undifferentiated Ashgill Rocks, consisting of mudstones, siltstones and sandstones.

2 Planning Policy Context and Legislation

2.1 Ancient Monuments and Archaeological Areas Act 1979

2.2 Under the Ancient Monuments and Archaeological Areas Act 1979 (1979 Act) (Ref. 1), the Welsh Assembly Government and Cadw are required to compile and maintain a Schedule of monuments considered to be of national importance. The statutory consent of Cadw is required before any works are carried out which would have the effect of demolishing, destroying, damaging, removing, repairing, altering, adding to, flooding or covering up a Scheduled Ancient Monument (SAM). There are no Scheduled Ancient Monuments within the proposed development area (red line boundary). However, there are three (3) SAM sites within 5km of the proposed turbine location.

2.3 Town and Country Planning Act 1990

2.4 Under the 1990 Town and Country Planning Act. Historic hedgerows are protected under the Hedgerow Regulations 1997. A hedgerow is historic if it marks a parish or township boundary which pre-dates 1850 AD, incorporates an archaeological feature or is part of or incorporates an archaeological site, marks the boundary of (or is associated with) an estate or manor which predates 1600 AD or forms an integrated part of a pre-parliamentary enclosure.

2.5 Planning (Listed Building and Conservation Areas) Act 1990

Under the Welsh Office Circular 61/96, 'Planning and the Historic Environment: Historic Buildings and Conservation Areas' and the 'Planning (Listed Buildings and Conservation Areas) Act 1990 (Ref. 1) and the Historic Buildings and ancient Monuments Act of 1953 (Ref.1), listed buildings are categorised as Grades I and II in decreasing order of special architectural and historic importance. These buildings are of acknowledged importance to the nation's built heritage. Section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990 requires planning decision makers to have special regard to the desirability of preserving listed buildings, their settings or any features of special architectural or historic interest which they possess. There are no listed buildings within the proposed development area (red line boundary). However, there are fifteen (62) LB sites within the 5km radius from the proposed turbine location.

2.6 Conservation Areas may be designated under the Planning (Listed Buildings and Conservation Areas) Act 1990. Section 72 of the 1990 Act requires decision makers on applications for planning consents to pay special attention to the desirability of preserving or enhancing the character or appearance of the area. As a matter of policy, planning decision makers must take into account the potential effects of development on the setting of Conservation Areas. There are no Conservation Areas within the proposed development area. The nearest Conservation Area lies over 7.5km away to the southwest in the town of Llandysul.

2.7 Welsh Office Circular 60/96 (Planning and the Historic Environment: Archaeology)

2.8 This guideline establishes the principles and framework within which archaeological matters are a material consideration within the planning process. It identifies how sites are preserved and

recorded, and the role of local authorities and the Welsh Office working through Cadw. It states:

- 2.9 *Archaeological remains should be seen as a finite and non-renewable resource, in many cases highly fragile and vulnerable to damage and destruction...They are part of our sense of national identity and are valuable both for their own sake and for their role in education, leisure and tourism'.* (Paragraph 3, Ref 1).
- 2.10 Welsh Office Circular 60/96 places emphasis on the need for early consultation with the appropriate authorities (Paragraph 11) and includes information on the need for formal Environmental Assessments in some circumstances (Paragraph 12, Ref 1).

3 Methodology and Consultations

3.1 Planning Background & Consultations

- 3.2 The proposed site has been subject to a previous planning application for a larger single wind turbine development (reference A130241), submitted in 2013, and subsequent appeal (references APP/D6820/A/13/2204726). The appeal was dismissed in April 2014 on the basis of the balance of benefits versus effects to the landscape character and appearance of the area. A new application was submitted in February 2015 and was intended to address the documented concerns of the inspector at that appeal, through a significant reduction in the scale of the development.
- 3.3 Following submission of the new application, Ceredigion County Council, following consultation with the Heritage Management section of the Dyfed Archaeological Trust, responded saying, *'In terms of the recommended appraisal, unfortunately the application as it stands does not contain enough supportive information for us to be able to provide you with informed advice..... Therefore we continue to recommend that a rigorous examination of all the relevant records, including aerial photographs and historic mapping should be carried out by a qualified and competent archaeologist. The work should include a walk over survey – in order to establish the presence or absence of previously unrecorded sites and should also examine the potential effect these proposal's may have on the setting of any monument's whether scheduled or not. For a turbine of this height we would be likely to recommend a 2km search area for non-designated assets and 5km for designated sites, including SAM's and listed buildings. This work should be carried out according to ClfA guidelines (Chartered Institute for Archaeologists), which would include the submission and agreement of a specification for this work prior to commencement. The production of an historic environment appraisal is a standard recommendation for which most developers are happy to accept as part of a rigorous planning process which undertakes to protect this finite and valuable resource.'*
- 3.4 Following consultation by HRS Wales with Dyfed Archaeological Trust (DAT), it was agreed that the archaeological dimension would include a rapid archaeological appraisal of all undesignated sites up to a 2km radius from the proposed turbine location and all designated sites up to a 5km radius. A Project Specification was submitted and approved by DAT on 14th October 2015. This resulting appraisal report now addresses the aforementioned shortcomings.

3.5 Methodology of Baseline Survey

- 3.6 In accordance with the ClfA's *Standards and guidance*, the purpose of a desk-based assessment is to gain information about the known or potential archaeological resource within a given area or site (including the presence or absence, character and extent, date, integrity, state of preservation and relative quality of the potential archaeological resource), in order to make an assessment of its merit in context, leading to one or more of the following:
- the formulation of a strategy to ensure the recording, preservation or management of the resource;
 - the formulation of a strategy for further investigation, whether or not intrusive, where the character and value of the resource is not sufficiently defined to permit a mitigation strategy or other response to be devised; and
 - The formulation of a proposal for further archaeological investigation within a program of research.
- 3.7 The other aim of the appraisal was to evaluate the potential direct effect of the proposed development on all cultural heritage features within the bounds of the application area, gather archaeological HER data for sites up to 2km from the proposed turbine location and to assess the potential indirect effect on the setting of all high value designated sites (Scheduled Ancient Monuments (SAMs), Listed Buildings (LBs) and other high value undesignated sites considered to be of national importance and worthy of scheduling) within a 5km radius from the proposed turbine location. A further aim was to evaluate the potential impact of the proposal on hitherto unknown buried archaeological remains in the proposed development area.
- 3.8 All work was conducted in compliance with the *Codes of Practice* of the Chartered Institute for Archaeologists (ClfA 2014).
- 3.9 The appraisal considered the following:
- the nature, extent and degree of survival of archaeological sites, structures, deposits and landscapes within the study area;
 - the history of the site;
 - the potential impact of the proposed development on the setting of known sites of archaeological importance; and
 - a methodology for non intrusive survey and/or intrusive evaluation to determine the location, extent, date, character, condition, significance and quality of any surviving archaeological remains liable to be threatened by the proposed development.
- 3.10 In considering the above, the following repositories were consulted as part of the research

assessment

- Dyfed Archaeological Trust (DAT) – HER database;
- Royal Commission on Ancient and Historic Monuments of Wales (RCAHMW), Aberystwyth – NMR, aerial Photos, maps, archives;
- National Library of Wales (NLW), Aberystwyth – Maps, archives;
- Cadw – SAM Listings, Listed Buildings, Parks & Gardens, Registered Historic Landscapes;
- County Records Office – Maps, plans; and

3.11 The following cartographic sources were included in the study:

- OS Surveyors drawing (1814);
- Tithe apportionment and parish map of Llanwenog (1840);
- Ordnance Survey 1st Edition map of 1887 (1:2500);
- Ordnance Survey 2nd Edition map of 1906 (1:2500);
- Ordnance Survey Edition map of 1948 (1:2500);
- Ordnance Survey Edition map of 1953 (1:2500);
- RAF Aerial Photo 1946

3.12 **Photographs**

3.13 Aerial photos consulted spanned the years 1946 – 2014.

3.14 All photographs appropriated during the site walkover were undertaken using a 10MP Olympus SLR in SHQ JPEG format and where considered necessary RAW file format were also appropriated.

3.15 Following the results of the desk based element, the potential for further archaeological work was considered in order to assess the viability for further study of the assessment results and to provide an indication of the relative importance of the material in any subsequent decision-making and mitigation strategies.

3.16 **Assessment of Direct Impact Methodology**

3.17 The system employed to evaluate the cultural value and direct effects of the proposed development on the archaeological resource is based on the site significance value scale as set out in the Design Manual for Roads and Bridges (DMRB, Volume 11, Section 3, part 2 HA 208/07) (Ref. 2).

3.18 The value of all the known and potential assets that may be affected by the Development should be ranked, whether they are archaeological remains, historic buildings or historic landscapes. The value of each asset has been ranked according to the following scale:

- *Very High* - World Heritage Sites (including nominated sites). Assets of acknowledged international importance. Assets that can contribute significantly to acknowledged international research objectives;
- *High* - Scheduled Monuments (including proposed sites). Undesignated assets of

schedulable quality and importance. Assets that can contribute significantly to acknowledged national research objectives;

- *Medium* - Designated or undesignated assets that contribute to regional research objectives;
- *Low* - Designated and undesignated assets of local importance. Assets compromised by poor preservation and/or poor survival of contextual associations. Assets of limited value, but with potential to contribute to local research objectives;
- *Negligible* - Assets with very little or no surviving archaeological interest; or
- *Unknown* - The importance of the resource has not been ascertained.

3.19 The following list provides an indication as to the predicted effect the Development will have on individual archaeological features. Potential impacts, direct and indirect, have been assessed in terms of their longevity, reversibility and nature (beneficial / neutral / adverse):

- **Permanent impacts** are those that persist beyond the predicted operational lifetime of the Development. All direct impacts are considered to be permanent;
- **Temporary impacts** arise as a result of the presence of elements of the Development but which would be removed by the dismantlement of those elements. Temporary impacts can be short-term (e.g. construction phase impacts); or long-term (arising from the long-term presence of the development affecting the setting of a receptor);
- **Reversible impacts** are those that are removed by the decommissioning / dismantling of the Development;
- **Irreversible impacts** are those that persist beyond the lifetime of the Development. All permanent and direct impacts are irreversible;
- **Beneficial impacts** are those that contribute to the value of a receptor through enhancement of desirable characteristics or the introduction of new, positive attributes. In terms of cultural heritage, beneficial impacts include those that add to an appreciation of the receptor and/or its setting;
- **Neutral impacts** occur where the development can be accommodated comfortably by the receptor while neither contributing to nor detracting from the value of the receptor; and
- **Adverse impacts** are those that detract from the value of a receptor through a reduction in, or disruption of, valuable characterising components or patterns, or the introduction of new inappropriate characteristics. In terms of cultural heritage, adverse impacts include those that detract from an appreciation of the receptor and/or its setting, or compromise views to or from the receptor.

3.20 The magnitude of the effect needs to be viewed in conjunction with the value of the monument, in order to appreciate the overall significance of any effect on a given archaeological feature. The magnitude of the effect (degree of change) can also be negative or positive, and should be ranked without regard to the value of the asset. The total destruction of a Low Value asset will have the

same magnitude of impact on the asset as the total destruction of a High Value asset; the value of the asset is factored in when the significance of the effect is assessed.

3.21 The magnitude of the effect was ranked according to the following scale:

- **Major:** Change to most or all key archaeological materials, such that the resource is totally altered. Comprehensive changes to setting;
- **Moderate:** Changes to many key archaeological materials, such that the resource is clearly modified. Considerable changes to setting that affect the character of the asset;
- **Minor:** Changes to key archaeological materials, such that the asset is slightly altered. Slight changes to setting;
- **Negligible:** Very minor changes to archaeological materials, or setting; or
- **No Change:** No change

3.22 Assessing the significance of the effects of the scheme brings together the value of the resource and the magnitude of the effect for each cultural heritage asset, using the matrix illustrated in the Table 1. The adverse or beneficial significance of effect has been expressed according to the following scale: Major; Moderate; Minor; or Negligible.

3.23 For the purpose of satisfying this assessment, those effects that are rated as 'moderate', 'major' or 'major/moderate' based on Table 1, are considered to be 'significant'.

Table 1. Matrix of Significance Criteria						
		Magnitude of Effect				
		No Change	Negligible	Minor	Moderate	Major
Value	Very High	Negligible	Minor	Moderate / Major	Major	Major
	High	Negligible	Minor	Moderate / Minor	Moderate / Major	Major
	Medium	Negligible	Negligible / Minor	Minor	Moderate	Moderate / Major
	Low	Negligible	Negligible / Minor	Negligible / Minor	Minor	Moderate / Minor
	Negligible	Negligible	Negligible	Negligible / Minor	Negligible / Minor	Minor

3.24 Site Inspection

3.25 The site visit set the context of the assessment, identifying:

- The location and character of archaeological sites and features within the proposed development area and all high value sites up to a 5km radius from the centre of the site that fall within Zones of Theoretical Visibility (ZTV).
- The current site condition.

3.26 **Assessment of Indirect Impact Methodology**

- 3.27 In terms of indirect effects concerned with issues of setting, there are no established definitive criteria or methodologies for assessing the setting of listed buildings or scheduled monuments, a concept that was introduced by the Planning (Listed Buildings and Conservation Areas) Act 1990. The requirement to assess the potential effects of a development on the setting of designated heritage features, such as scheduled monuments, conservation areas and listed buildings, is outlined in Planning Policy Wales (2014).
- 3.28 There are no established definitive criteria or methodologies for assessing the setting of listed buildings or scheduled monuments, a concept that was introduced by the Planning (Listed Buildings and Conservation Areas) Act 1990. In the absence of more detailed advice on setting in Wales, the requirement to assess the potential effects of a development on the setting of designated heritage features, such as scheduled monuments, conservation areas and listed buildings, has to turn to English Heritage's further detailed guidance advice in *The Setting of Heritage Assets (2012)* (Ref 6) and Cadw's Conservation Principles.
- 3.29 The guidance describes setting as,
- 3.30 *"...the surroundings in which an asset is experienced. All heritage assets have a setting, irrespective of the form in which they survive and whether they are designated or not. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance, or may be neutral.*
- 3.31 *The extent and importance of setting is often expressed by reference to visual considerations. Although views of or from an asset will play an important part, the way in which we experience an asset in its setting is also influenced by other environmental factors such as noise, dust and vibration; by spatial associations; and, by our understanding of the historic relationship between places. For example, buildings that are in close proximity but not visible from each other may have a historic or aesthetic connection that amplifies the experience of the significance of each. They would be considered to be within one another's setting.*
- 3.32 *Setting will, therefore, generally be more extensive than curtilage and its perceived extent may change as an asset and its surroundings evolve or as understanding of the asset improves.*
- 3.33 *The setting of a heritage asset can enhance its significance whether or not it was designed to do so. The formal parkland around a country house and the fortuitously developed multi-period townscape around a medieval church may both contribute to the significance.*
- 3.34 *The contribution that setting makes to the significance does not depend on there being public rights or an ability to access or experience that setting. This will vary over time and according to circumstance. Nevertheless, proper evaluation of the effect of change within the setting of a heritage*

asset will usually need to consider the implications, if any, for public appreciation of its significance.”
(Ref: 6).

- 3.35 The aim in assessing the setting of an archaeological site, particularly one that is designated, such as a listed building, a scheduled monument or further still an historic landscape, is to prevent it becoming isolated from its surroundings.
- 3.36 For the purposes of this assessment, a setting is considered to have two principal dimensions - "immediate or near setting" and "wider or far setting", although some features, by nature of their location and surroundings, may not have a wider setting.
- *immediate/near setting* - ancillary land used with the building or monument, or within the curtilage of the building, e.g. the garden of a listed building or the rear gardens of buildings around the outskirts of a conservation area. Citation boundaries can be an indication of the immediate setting; and
 - *wider/far setting* - an area around the cultural heritage feature, which may be built environment or part of the countryside and which may or may not be functionally linked or contemporaneous with the age of the feature, but which contributes to the special interest and understanding of the feature.
- 3.37 There is no requirement under current statute, guidance or even case law that the wider setting should extend to the extreme limit of visibility, although the extent of a setting will tend to widen with the importance of the principal heritage feature. Regard should be given to views from the cultural heritage feature towards the Proposal, views from the Proposal towards the cultural heritage feature and views from any other relevant location. However, visibility is only the necessary starting point and, thereafter, it must be determined just what of relevance is visible in the heritage feature and its setting, what relationships exist between these visible elements and what weight or importance should be attributed to the whole (Ref. 6).
- 3.38 Further to this approach, regard must be given to the fact that setting is primarily governed by function and even nationally important heritage features may have narrow settings.
- 3.39 Landscapes and land-use often change over time, and thus an assessment of the setting of a designated site within the wider landscape requires a balance to be achieved between the concept of its original historic setting and its development as part of the modern day landscape.
- 3.40 The study has considered the physical attributes of each site and its setting in terms of topography, its original economic function and natural resources, historic resonance with land-use, connections and communications with neighboring features of the historic landscape and inter-visibility between them, as well as cultural associations and issues of public perception. The assessment has also

examined what peripheral effect the wind turbine would have on the historic views from each site, and on public appreciation of them as features of special historic and architectural interest.

- 3.41 Assessing the significance of the indirect effects of the scheme brings together the value of the resource and the magnitude of the effect for each cultural heritage asset, using the same matrix illustrated in the Table 1. The adverse or beneficial significance of effect has been expressed according to the following scale: Major; Moderate; Minor; or Negligible.
- 3.42 For the purpose of satisfying this assessment, those effects that are rated as 'moderate', 'major' or 'major/moderate' based on Table 1, are considered to be 'significant'.
- 3.43 The value of archaeological sites have been assessed in accordance with the value scale as set out in the Design Manual for Roads and Bridges (DMRB, Volume 11, Section 3, part 2 HA 208/07) (Ref. 2).
- 3.44 All designated Scheduled Ancient Monuments (SAMs), undesignated sites of schedulable quality and Grade I, Grade II* and Grade II Listed Buildings have been assessed as being High Value sites and as such are of National importance.
- 3.45 In order to aid and inform the assessment of the potential indirect effect of the proposed development on heritage assets within the 5km radius, a Zone of Theoretical Visibility (ZTV) map has been produced (see Figures 14 - 17 in Appendix I). By examining the ZTV map, specific sites, where impacts were visually predicted, were targeted and each identified site was assessed on its own merits. Photo-montages were produced where considered necessary and where possible.
- 3.46 As part of the indirect effect assessment the cumulative effect of the proposed development was assessed in conjunction with other known wind turbine sites within the 5km radius (see Figure 16 and 17 in Appendix I).

4 Baseline Conditions

4.1 Previous Archaeological Works

- 4.2 Other than general field work that has taken place in the wider landscape over the decades in the region, there has been no archaeological work undertaken within the immediate study area (red line boundary) itself.

4.3 Ceredigion Historic Landscape – LANDMAP

- 4.4 The proposed development falls entirely within one (1) historic Landscape character area within the LANDMAP survey region of Ceredigion. The Ceredigion region survey was surveyed in 2008.
- 4.5 The Ceredigion Historic Landscape was defined at Level 3 according to LANDMAP methodology (Ref 5). The application area falls within one (1) identified historic landscape area, that of *Allt y Banc*.

The area of Allt y Banc is shown below, followed by a detailed description of its characteristics and value to the Ceredigion Historic Landscape as a whole.

Allt y Banc (LANDMAP Ref id: CRDGNHL074)

- 4.6 This character area was surveyed at Level 3 in 2008 and is described as a Ceredigion rural agricultural environment, with regular field-scapes. Allt y Banc is a fairly small historic landscape covering approximately 587 hectares in extant, with hedgerow, hedge-banks and post and wire fencing forming the traditional boundary type. Significant archaeological interests are confined to, buried and dry remains and buildings & structures of the post medieval periods. There are neither Scheduled Ancient Monuments (SAMs) nor any Listed Buildings (LBs) within this historic landscape. However, there are listed buildings close to the southern area of the historic landscape. There are no Registered Parks & Gardens, Conservation Areas, or Registered Historic Landscapes within this historic landscape.
- 4.7 The area is considered of *High* value historically and is generally in *Good* condition. The existing management of this area is considered to be generally appropriate with recommendations to maintain existing access. Landscape features and to maintain and restore traditional field boundaries. According to LANDMAP evaluation, the landscape is considered to have *Moderate* integrity, *High* survival, *Moderate* rarity and is generally of *High* value overall. The following table lists the principle evaluation criteria for this character area. The overall evaluation of this landscape concludes that it is a High value landscape, which scores Moderate in two categories and High in another. The areas Condition and Potential criteria have not been assessed.

Table 2 - LANDMAP Evaluation Criteria (Ref id: CRDGNHL074)					
Integrity	Survival	Condition	Rarity	Potential	Overall Evaluation
<i>Moderate</i>	<i>High</i>	-	<i>Moderate</i>	-	<i>High</i>

4.8 Heritage Assets within 5km radius (Historic Environment Records (2km) and Designated Sites (5km))

Prehistoric Periods (*Palaeolithic, Mesolithic, Neolithic, Bronze Age*)

- 4.9 There are no known prehistoric sites within the application red line site.
- 4.10 Within the prescribed 2km radius from the proposed turbine location, there are only three (3) prehistoric sites recorded within the HER database. These medium value sites are all Bronze Age Round Barrows and include:
- 1) *Crug-yr-Udon; Bwlch Mawr Round Barrow* (PRN: 1839) – The site of a former round barrow, excavated in the 19th century and subsequently ploughed out so that there are no

remains visible on the ground. Positioned approximately 1.85km S of the proposed turbine location.

2) *Carn Philip Gwyddel Round Barrow* (PRN: 5638) – Site viewed from the road - grass in this pasture field too tall to establish the presence on the ground of any features. However, it appeared that little if nothing remained of the site. According to Meyrick (1907) the site was destroyed c. 1806. Positioned approximately 970m NE from the proposed turbine location.

3) *Blaenhirbant-Uchaf Round Barrow* (PRN: 5640) – Site noted by the OS in 1975 as a 27m diameter ring ditch and off-centre cist visible on 1946 RAF aerial photographs, but not visible on the ground. However, the PFRS project recorded the site as 13m in diameter and 0.2m high when visited in 2004. Positioned approximately 1.8m NW of proposed turbine location.

- 4.12 Within the 2km - 5km radii from the proposed turbine position, there are no designated prehistoric sites.

4.13 Iron Age and Romano-British period

- 4.14 There are no known Iron Age or Romano-British period sites within the application site red line study area recorded within the regional HER, nor within the National Monuments Record database.

- 4.15 However, within the 2km radius there are three Iron Age/Romano-British Defended Enclosures. These sites include:

1) *Clawdd Buarth Defended Enclosure* (PRN: 8215) – This undesignated defended enclosure is positioned on a large platform area on the southeast facing slope of the hill that overlooks the village of Llanwenog and the valley of the Nant Cledlyn at a height of approximately 215m AOD. This oval bank and ditch earthwork measures approximately 140m x 110m. A pond area is positioned at the external northern end of the enclosure with the original opening at the southern end. The site is presently heavily gorse covered. Positioned approximately 560m southeast of the proposed turbine location.

2) *Tyn-y-Porth Defended Enclosure* (PRN: 9951) –Ty'n Y Porth is a much-reduced circular earthwork enclosure situated on a moderate east-facing slope at 160m above sea level. It is clearly visible on aerial photographs of the 1950s as a circular earthwork. Positioned approximately 1km east from the proposed turbine location close to the village of Llanwenog.

3) *Cefnrhuddlan Uchaf Defended Enclosure* (NPRN: 405309) – This is the site of a bivallate rectangular defended enclosure, with outward-curving ditches, measuring approximately 76m east/west by 60m north/south. Some possible internal pits are visible. No clearly defined entrance. Discovered as a cropmark during RCAHMW aerial reconnaissance in July

2006.

- 4.16 Within the 2km - 5km radii from the proposed turbine position, there is only one (1) designated Iron Age site, an Iron Age Hillfort positioned overlooking the town of Llanybydder

1) *Pen y Gaer Hillfort (SAM Ref: CM101)* – This is a partially bivallate hillfort, defining the summit of an abrupt peak above Llanybydder. The bivallation occurs to the east, on the other side of the entrance, which was inturned. Single ramparts only cap the steeper slopes to the west and south. Positioned approximately 4.4km southeast from the proposed turbine location.

4.17 Medieval Periods

- 4.18 The HER records no known medieval sites within the application area itself. However, within the 2km radius there are four (4) known medieval data-points. Three of these are undesignated sites and are of medium value and one is a Grade I Listed Building. These sites include:

- 1) *Llanwenog Parish Church of St Gwenog (PRN: 5636 / LB No. 9817)* – Grade I Medieval church, the only one dedicated to St Gwenog. Late C14 and late C15, the tower added after 1485 for Sir Rhys ap Thomas (d 1525) of Dinefwr and Carew, whose arms it bears. Repairs 1985 and 1993 by R. Clive-Powell. The interior has a C15 barrel roof exceptional in the county and much carved woodwork of high quality made between 1889 and 1924 by Colonel Herbert Davies-Evans of Highmead to designs by him and by his wife Mary. Col Davies-Evans was assisted by the vicar, the Rev John Morris, the curate the Rev. Henry Jones, and most notably, between 1914 and 1919, by an accomplished Belgian carver, Joseph Reubens of Bruges. Positioned at the core of Llanwenog village approximately 1.04km ENE of proposed turbine location.
- 2) *Ffynon Wenog Holy Well (PRN: 8079)* - Tradition, recorded by Francis Jones (1954), of a curative well located near Llanwenog church, the waters of which were especially beneficial to children with weak backs. The site is not recorded on historic Ordnance Survey maps or modern mapping. This site lies approximately 1.1km ENE of the proposed turbine location.
- 3) *St Gwenog's Church Prayer Station (PRN: 8100)* – Position of former medieval prayer station associated with Llanwenog Church. Now destroyed. Positioned approximately 980m ENE from proposed turbine location.
- 4) *Battle of Llanwenog (PRN: 8312)* - It is recorded in the *Brut y Tywysogion* that a great battle took place in Llanwenog. The date of this battle however is uncertain and the combatants involved also unclear, but it would seem to have been in the 10th century. Traditionally the battle is associated with a square area of enclosed land positioned approximately 570m NE from the proposed turbine location known as Clawdd Buarth ('Hedge Fold'), but this may have been confused with the remains of the Iron Age

defended enclosure also known as Clawdd Buarth (PRN: 8215), positioned only 250m to the south. The OS First Edition map positions the battle as having taken place within an enclosed square area of woodland. However, it is more likely that a battle, if any, actually took place over a wider area of land. Tradition also says that the area of land in which the woodland sits is known as Cae Vaes, possibly denoting a field of battle. Given the uncertainty of the actual position of this battle, the HER database gives only a four figure grid reference for this site.

4.19 Within the 2km - 5km radii from the proposed turbine position, there are two (2) designated medieval sites. These sites are both medieval Norman mottes:

- 1) *Tomen Rhyd-Owen (SAM Ref: CD076)* – A steep-sided sub-circular mound, set on the butt-end of a north facing ridge set above the Clettwr valley, thought to represent a medieval castle motte: the mound, some 30-34m in diameter, rises from 3.2m to 5.5m to a level summit, perhaps originally about 16m across; the mound is ditched about & remains of a counterscarp can be traced about its northern perimeter. It lies approximately 4km W from proposed turbine location.
- 2) *Castell Hywel (SAM Ref: CD084)* – A sub-circular steep-sided mound, set on the western point of a spur above the valley of the Clettwr Fach, thought to represent a medieval castle motte: the mound is about 40m in diameter and rises 9.5m to a level summit, 18m in diameter, mutilated by trenching; ditched except on the west, where it rests on a 12m high scarp above the valley bottom: identified with Humphrey's Castle, recorded as destroyed in 1136 & rebuilt, 1153. It lies approximately 4.8km NW from proposed turbine location.

4.20 Post-Medieval periods

4.21 Within the HER database there are no post-medieval sites recorded within the application red line area itself.

4.22 As would be expected, this chronological period marks the greatest number of known sites within the wider study area, a total of twenty-three (23) post medieval sites are located within the 2km radius. Site types include: 1 Blacksmiths Workshop, 1 Bridge, 1 Chapel, 1 Church, 1 Churchyard, 1 Cottage, 1 Factory, 2 Farmsteads, 1 Fulling Mill, 1 Lodge, 2 Mansions, 3 Milestones, 2 Quarries, 1 Sand Pit, 2 Schools, 1 Stable and Coach House Range, 1 War Memorial. For further details of these sites see Appendix III. The majority of these sites are undesignated medium value sites. However, six (6) are listed sites:

- 1) *Llanwenog Parish Church of St Gwenog (PRN: 5636 / LB No. 9817)* – This is a Grade I Listed Church positioned at the core of Llanwenog village. A description of this church has already been given in the medieval section. The church lies approximately 1.04km ENE of proposed turbine location.

2) *Bwlch-Bychan House* (LB No. 18367 / PRN: 18163) - This Grade II Listed Mansion house lies approximately 1.9km S of the proposed turbine location.

3) *Milestone on A475 E of Drefach* (LB No. 18370 / PRN: 57,943) - This Grade II Listed Milestone lies approximately 1.4km NE of the proposed turbine location.

4) *Milestone on A475 E of Cwmsychbant* (LB No. 18370 / PRN: 57,942) - This Grade II Listed Milestone lies approximately 870m N of the proposed turbine location.

5) *Stable and Coach-house Range at Bwlchbychan* (LB No. 18368 / PRN: 57,941) - This Grade II Listed Coach House Range lies approximately 1.8km S of the proposed turbine location.

6) *Drefach War Memorial* (LB No. 18371 / PRN: 57,944) - This Grade II Listed Memorial is positioned within the village of Drefach, standing approximately 1.9km E of the proposed turbine location.

4.23 Within the 2km – 5km radius, there are a further fifty-nine (59) designated Listed Building sites. Fifty-six (56) of these listed sites have Grade II listing. However three (3) have a Grade II* Listing. The greater part of these designated are positioned in the western and southwestern regions of the 5km radius. With regard to the Grade II* Listed site, these are listed below. For the location and details of all of the other Grade II LBs please see the Site Gazetteer in Appendix III with reference to Figures 12 and 13 .

1) *Rhiwson Uchaf house-and-byre* (LB Ref: 18374) – This house and byre is a Grade II* listed building. Situated some 600m NNE of Drefach, reached by minor lane running NNE of B4338, and down drive from right angle bend at Rhiwson Isaf. Positioned approximately 2.6km NE of the proposed turbine location, just north of the village of Drefach.

2) *Church of St Llonio & Maesycrugiau mausoleum and churchyard* (LB No. 9378) – This Grade II* church and features is positioned In an isolated position away from Llanllwni village and on an elevated site directly above Afon Teifi. Positioned approximately 4.1km SSW of the proposed turbine location in the village of Maesycrugiau.

3) *Alltyrodyn Mansion, including rear courtyard* (LB No. 10643) – This Grade II* property is positioned approximately 3.5km EWE of the proposed turbine location. This mansion house is at the core of the Registered Park & Garden of Alltyrodyn (Ref: PGW (Dy) 46(CER)).

4.24 Within the 5km radius from the proposed turbine location there are also two (2) Registered Park &

Garden sites. These include *Alltyrodyn* (Ref: PGW (Dy) 46(CER)) and *Maesycrugiau Hall* (Ref: PGW (Dy) 3(CAM)).

- 1) *Alltyrodyn* (Ref: PGW (Dy) 46(CER) - The survival of an early nineteenth century ornamental pleasure ground on a grand scale, contemporary with the house, complete with a rare bath house & large, well preserved kitchen garden, which includes a flower garden compartment & an orangery. The wooded grounds contain fine mature trees & lookout over an attractive and un-spoilt rural valley. Contains Listed buildings: *Alltyrodyn* (grade II*); stables & coach house (grade II); walls to walled gardens including *Garden Cottage* (grade II); bath house (grade II); bridge on north drive (grade II); entrance gate piers on north drive (grade II); *South Lodge*, attached walls & gates with gate piers (grade II); serpentine cascade from lake by *South Lodge* (grade II). Positioned approximately 3.45km W of proposed turbine location.
- 2) *Maesycrugiau Hall* (Ref: PGW (Dy) 3(CAM) - Remains of extraordinary Edwardian summerhouse in neglected contemporary garden with some pre-1891 features. Contains formal terrace, pond and garden area in front of house; ponds, summerhouse & woodland walks. Reasonable survival of woody species. Positioned approximately 4.5km S of proposed turbine location.

4.25 Modern Period

- 4.26 Within the HER database there are no modern sites recorded within the application area study area.

4.27 Unknown Period

- 4.30 Within the HER database there are three (3) sites of unknown period within the 2km radius from the application site. These include:

- 1) *Caerau Placename* (PRN: 5907) - Record of a "caer" place-name of unknown significance. RPS September 2001
- 2) *St Gwenog Dedication* (PRN: 10288) - Record deleted during Cadw Early Medieval Ecclesiastical Sites Project PRN 44753. Record now merged with PRN 50153. NDL 2004.
- 3) *Gwarcoed Einon Enclosure* (PRN: 14412) – No further details.

4.31 Cartographic Sources

OS Surveyors drawing (1814)(Figure 4)

- 4.32 This early OS map shows the study area as being divided between open mountain land to the north and east and enclosed land to the south and west. No dwellings or structures or shown on this early OS drawing.

Tithe Map and Apportionment of the parish of Llanwenog (1840) (Figure 5)

- 4.34 The Tithe map and apportionment records for the parish of *Llanwenog* of 1840 shows much the same story as that shown on the earlier OS Surveyors drawing, However, now much of the northern and eastern region of the study area, formerly mountain land, is now occupied by forestry plantation (No. 1576).
- 4.35 According to the tithe apportionment details, the red line study area at this time was divided between two estates, that of *Llechwedd* owned by Herbert Evans and the Ceire Estate, owned by one Daniel Thomas. The area of the proposed turbine was formerly part of the Llechwedd estate at this time and is described as *Llain*, which translates as *strip*, possibly denoting a strip of plantation.

. Table 4 - Tithe Map and Apportionment details for Llanwenog parish within Application Area				
Tithe No.	Name	Owner	Occupier	Details
Ceire Estate				
1463	Cae Canol	Daniel Thomas	Evan Evans	No details given
1464	Cae with penyffordd	Daniel Thomas	Evan Evans	No details given
1465	Cae Pant	Daniel Thomas	Evan Evans	No details given
1466	Cae clovers bach	Daniel Thomas	Evan Evans	No details given
1467	Cae Mountain	Daniel Thomas	Evan Evans	No details given
1468	Cae buarth	Daniel Thomas	Evan Evans	No details given
1469	Cae ty wyll	Daniel Thomas	Evan Evans	No details given
1470	Cae brunan	Daniel Thomas	Evan Evans	No details given
1471	Car bach dan coed	Daniel Thomas	Evan Evans	No details given
1472	Cae croft	Daniel Thomas	Evan Evans	No details given
1478	Cae y hen scubor	Daniel Thomas	Evan Evans	No details given
1483	Cae eithin	Daniel Thomas	Evan Evans	No details given
1484	Cae pig faen	Daniel Thomas	Evan Evans	No details given
1485	-	Daniel Thomas	Evan Evans	No details given
1486	-	Daniel Thomas	Evan Evans	No details given
Llechwedd Estate				
1576	Llain	Herbert Evans	Thomas Davies	No details given

OS First Edition map 1:2500 (1887) (Figure 6)

- 4.36 This first published Ordnance Survey map series shows the application area much as it was on the Tithe Map of 1840. However, by this time there is no plantation and the north and eastern area of the study area is slowly becoming more enclosed. The only new feature is a quarry and a trackway at the central and western area. Also worth noting is an apparent curving boundary that runs north to southwest just below the proposed turbine location. This is probably a drainage ditch.

OS second Edition map 1:2500 (1906) (Figure 7)

- 4.37 No great changes on this map series from the earlier map series.

OS 1948-1953 Edition map 1:2500 (Figure 8)

- 4.38 No changes from the earlier edition map.

Aerial Photos (Figure 9)

- 4.40 Aerial photos investigated as part of the desk based work included vertical sheets from the RAF 1946 vertical photograph series. This early aerial photo shows the application site much as it is shown on the OS 1948-1953 Edition Map series. No apparent crop-marks were identified on any of the 1940s RAF aerial photos analysed. The vertical photographs of the area suggest that the area of the proposed turbine was open mountain land at the time probably used as rough pasture, with the area to the west being enclosed fields for arable, meadow and pasture.

Table 5. RAF Vertical Aerial Photos consulted

Sheet No.	Sortie	Frame No.	Date	Type
139-140	106G/UK/1471	3034-3036	04/05/1946	RAF
140	106G/UK/1471	6034-6035	04/05/1946	RAF

4.41 Site Visit

- 4.42 The field visit to the site walked all of the fields around the proposed turbine location. It also walked along the route of the proposed access track and proposed service cable trench, noting the character and form of all of the boundaries. The perimeter boundaries were all either 18th century, or else 19th century hedgerow and hedge-banks with occasional modern post and wire fencing. All of the internal field boundaries are either hedgerow or modern post and wire fencing with occasional dry stone walling, particularly in the area to the southwest of the proposed turbine.
- 4.43 In the area of the proposed turbine and access track options, no surface features were readily evident. All of the fields within the study area were improved pasture. The walkover along the route of the proposed access track extension and service cable run also observed no significant features.

4.44 A site visit was also undertaken to key designated and undesignated sites of schedulable quality within the 5km study area, as identified by those falling within the Zones of Theoretical Visibility (ZTV), in order to assess their potential significance of indirect effect from the proposed turbine on their setting.

4.45 Sites noted within the Application Area

4.46 Within the application area, the regional HER database recorded only one archaeological site, that of the Llanwenog Battle site (PRN: 8312). However, this is not the actual position of the battle, but only a general grid reference given to only four figures, indicating that the battle likely took place somewhere within the grid square of SN 48 45.

4.47 The cartographic study and site visit however, identified a total of twenty-six (26) new sites. The greater part of these are all boundaries shown on both the OS Surveyors drawing of 1814, the Tithe Map of 1840 and the OS First Edition Map of 1887. These boundaries are predominantly hedgerows and post and wire with occasional dry-stone walling (Site No. 14). A list of all the sites identified is given below in Table 6 below (see also Figures 6 and 11).

Table 6. Heritage Assets within application site				
Site No.	PRN	Site Type	Condition	Source & period
1		Boundary	Absent	Tithe Map 1840
2		Boundary	Altered	OS Surveyors Drawing 1814
3		Boundary	Still present	Tithe Map 1840
4		Boundary	Still present	OS Surveyors Drawing 1814
5		Boundary	Still present	Tithe Map 1840
6		Boundary	Still present	OS Surveyors Drawing 1814
7		Boundary	Still present	Tithe Map 1840
8		Boundary	Still present	OS Surveyors Drawing 1814
9		Boundary	Still present	OS Surveyors Drawing 1814
10		Boundary	Still present	OS Surveyors Drawing 1814
11		Track	Still present	OS 1887 Map
12		Boundary	Still present	OS Surveyors Drawing 1814
13		Quarry	Still present	OS 1887 Map
14		Dry-stone walling	Still present	Tithe Map 1840
15		Boundary	Still present	Tithe Map 1840
16		Boundary	Still present	Tithe Map 1840
17		Boundary	Still present	OS 1887 Map
18		Boundary	Still present	OS Surveyors Drawing 1814
19		Drainage ditch?	Absent	OS 1887 Map

Table 6. Heritage Assets within application site				
Site No.	PRN	Site Type	Condition	Source & period
20		Boundary	Still present	Tithe Map 1840
21		Boundary	Still present	OS 1887 Map
22		Boundary	Still present	OS 1887 Map
23		Boundary	Still present	Tithe Map 1840
24		Boundary	Still present	OS Surveyors Drawing 1814
25		Boundary	Still present	Tithe Map 1840
26		Enclosure	Absent	OS 1906 Map

5 Assessment of Effects

Direct Physical Effects

- 5.1 The desk based appraisal and site visit has identified no direct physical impact on any known heritage assets from any element of the proposed development. However, given that there is a record of a battle site within the immediate area, any proposed groundwork could very well expose remains associated with this apparent battle, but this would not become evident unless ground work is suitably supervised by an on site archaeologist.

Indirect non-physical Effects

- 5.2 Indirect physical effects associated with the development are not considered to be of sufficient magnitude in this instance to warrant separate assessment. There are no known sites within the development site boundary that include fragile deposits (for example waterlogged organic remains) that might be affected by changes in hydrology or from increased erosion. In terms of dislocating certain features from their attendant landscapes, the development will inevitably however introduce a visual component, which is considered under indirect visual effects below.

Indirect Visual Effects

- 5.3 Within the 5km radius from the proposed turbine location, the assessment has identified a total of sixty-seven (67) designated sites. Three (3) of these designated sites are individual Scheduled Ancient Monuments (SAMs), sixty-two (62) are Listed Buildings (LBs) and two (2) are Registered Park & Gardens (P&Gs). Each of these designated sites has been appraised in terms of the indirect effect of the proposed development on their setting. To aid this appraisal, a Zone of Theoretical Visibility (ZTV) map was produced at blade tip (see Figures 14 - 17).
- 5.4 This ZTV map predicts that only one (1) of the SAM sites within the 5km radius will potentially have visibility of the proposed turbine. The ZTV map also predicts that twenty-four (24) listed buildings within the 5km radius will also potentially have visibility of the turbine at blade tip. Although the ZTV map does predict that neither of the Registered Park & Gardens within the 5km radius will have visibility of the turbine, it does nevertheless predict that it could potentially have an indirect effect on

part of the essential setting of the Park & Garden of *Alltyrodyn*.

- 5.5 Due to the relatively low height of the proposed turbine, 36.6m to blade tip, it has been predicted that any designated sites over 3km away from the proposed turbine position, will not be *significantly* indirectly affected by the proposal due to distance and screening from intervening landscape components, unless there is evidence that the turbine's position will have an indirect effect on either a landscape park or a site's potential group setting or potential inter-visibility lines of sight, such as the relationship between prehistoric burial sites and Iron Age hillforts and defended enclosures, where views into the wider landscape beyond the 3km radius played an important role in their original and operational setting. In this instance, there is one such group relationship, that between the designated Iron Age Hillfort of *Pen-y-Gaer* (CM101) in Llanybydder and the undesignated Defended Enclosure of *Clawdd Buarth* positioned only approximately 560m southeast of the proposed turbine. Other than these two aforementioned sites, which will both be appraised in more detail in the following section, only designated sites and undesignated sites of schedulable quality that fall within the 3km radius have been appraised further with regards to indirect visual effects.
- 5.6 All other designated sites over 3km away, which the ZTV maps predict would have visibility will either be screened from intervening landscape components, such as hedgerows, trees and buildings, or else the scale of the turbine at this distance would have only a *Negligible* magnitude of effect and therefore of only *Minor* significance.
- 5.7 This means that only one (1) Scheduled Ancient Monument (SAM) and four (4) Listed Buildings (LBs) need to be appraised further. With regard to Listed Buildings sites, two of these LBs are Grade II listed milestones (LB No's. 18370 / 18369), which do not have a wider landscape setting. As such it is predicted that the proposed indirect effect on these two designated sites will be of *Negligible* magnitude and therefore of only *Minor* significance. As a result of this, the ZTV predicts that only two LB's within the 3km radius need be appraised in more detail.
- 5.8 With regards to the potential indirect effect from the turbine on the setting of the Registered Park & Garden of *Alltyrodyn*, the ZTV predicts that although the P&G will not itself be indirectly effected, the ZTV does predict that the proposed turbine could potentially have an effect on the essential setting of *Alltyrodyn* at its far western end. However, given the distance of the proposed turbine from this potential indirect effect, over 4km to the west-south-west of this Park & Garden, and the fact that significant views from the mansion look further west rather than east, it is predicted that distance and intervening landscape components will render this potential effect on the essential setting of *Alltyrodyn* as being of *Negligible* magnitude of effect and therefore of only *Minor* significance.
- 5.9 All other medium value undesignated HER sites within the 2km radius will not be significantly affected by the proposed turbine and as such it is predicted that the effect on these sites will be of *Negligible* magnitude and therefore of *Negligible/Minor* significance.

- 5.10 With regards to the Llanwenog Battle site (PRN: 8,312), if there was indeed a battle, appears to have taken place somewhere in the vicinity of Llanwenog and it may be that the battle took place on the slopes above Llanwenog near Clawdd Buarth, but it may also have taken place on the higher slopes. Given the fact that there is some uncertainty as to the exact location of this apparent battle, it is impossible to offer any predicted effect on the setting of the site. However, there is the chance that groundwork from the proposal may offer some evidence up to inform this location.

5.11 Designated and Undesignated Sites of Schedulable quality indirectly affected

SAM Sites indirectly affected within 3km

- 1) *Pen-y-Gaer Hillfort* (SAM Ref: CM101) – Site lies approximately 4.4km NW from proposed turbine location.

LB Sites indirectly affected within 3km

- 1) *Drefach War Memorial* (LB No. 18371 / PRN: 57,944) - This Grade II Listed Memorial is positioned within the village of Drefach, standing approximately 1.9km E of the proposed turbine location.
- 2) *Rhiwson Uchaf house-and-byre* (LB Ref: 18374) – Grade II* listed property. Positioned approximately 2.6km NE of the proposed turbine location, just north of the village of Drefach.

Undesignated Sites of Schedulable Quality indirectly affected within 3km

- 1) *Clawdd Buarth Defended Enclosure* (PRN: 8215) – Undesignated Iron Age site positioned approximately 560m southeast of proposed turbine location.

- 5.12 Each of the above listed sites will be appraised further on their own individual merits in the following section.

Scheduled Ancient Monuments (SAMs) Indirectly affected

1) Pen-y-Gaer Hillfort (SAM Ref: CM101)

Location and Context

- 5.13 This Iron Age hillfort is positioned on the summit of a large peaked hill approximately 4.4km southeast of the proposed turbine location at the far southeast end of the town of Llanybydder, at a height of approximately 190m AOD.

The Site

- 5.14 This is a partially bivallate hillfort, defining the summit of an abrupt peak above Llanybydder. The bivallation occurs to the east, on the other side of the entrance, which was in-turned. Single ramparts only cap the steeper slopes to the west and south.

Setting

- 5.15 Pen-y-Gaer is set at the summit of a peaked grass covered steep sided hill at the far southeast end of the town of Llanybydder. The town itself is settled at the base of the hill on its northern, north-eastern and western and south-western sides. Being set where it is the fort is strategically positioned so as to allow it very clear defensive views along the Teifi Valley that runs southwest to northeast, as well as clear views into the wider landscape to the northwest, where the proposed turbine is to be located. Being in this strong topographic position, the hillfort would have been very visible from several other contemporary defended enclosures set within the Teifi Valley, such as the *Clawdd Buarth Defended Enclosure* (PRN: 8215) and the *Cefnrhuddlan Uchaf Defended Enclosure* (NPRN: 405305 – This is an undesignated cropmark site identified by the RCAHMW during aerial reconnaissance in 2006 and positioned approximately 2.1km southeast of the proposed turbine location), both Iron Age sites that are located on the slopes of the lower valley areas to the northwest and would have had intervisibility with each other as well as the Pen-y-Gaer Hillfort.

Assessment of Effects

- 5.16 According to the ZTV map at blade tip, the proposed turbine will be visible in its entirety from the northwest regions of this hillfort when looking toward the northwest. The two defended enclosures of *Clawdd Buarth* (PRN: 8215) and *Cefnrhuddlan Uchaf* (NPRN: 405309) are also visible in this direction, but these two sites are both positioned in lower and closer hillslope positions, and as such the presence of the turbine further northwest would not obscure visibility of these two sites from Pen-y-Gaer and nor would they detract from the wider landscape appreciation of the two sites from this hillfort. Also, given the fact that the proposed turbine would be positioned over 4.4km away, the turbine would merge with other landscape components and its presence would be only slight.
- 5.17 Given the above considerations, although the sensitivity of this monument is considered to be High value (of National importance) the indirect visual magnitude of effect is considered to be *Negligible* and it is predicted that the overall significance of effect on the setting of this monument would be *Minor*, but also temporary for the lifetime of the turbine.

Listed Buildings (LBs) Indirectly affected

1) Drefach War Memorial (LB No. 18371 / PRN: 57,944)

Location and Context

- 5.18 This Grade II Listed Memorial is positioned within the village of Drefach, standing approximately 1.9km east of the proposed turbine location at a height of approximately 124m AOD.

The Site

- 5.19 War memorial of c.1922, probably made by E. Jones of Llanybydder. Similar to those at Aberbanc, Cribyn, Ceredigion and Pencader Carmarthenshire. White marble statue of soldier at ease with rifle by right side and left leg slightly raised on cannon. Standing on bi-colour granite tall pedestal. Grey plinth, two-step with moulded top and affixed pink granite 1939-45 memorial plaques. Battered pink granite shaft with inscription to front and names to sides and big grey granite corniced cap chamfered back to square plinth for statue.

Immediate and Wider Setting

- 5.20 The immediate setting of the Drefach War memorial is an urban one, being positioned on the south side of the A475 main road. The statue of the soldier faces north and is surrounded by wrought iron railings with a small iron access gate to the enclosure around the memorial set in the north end. Being set in this position, the statue is supposed to be viewed and appreciated from the north end looking south, but views around the entire statue are possible. Essentially the setting of the monument is very much immediate and associated with the village itself rather than the wider landscape.

Assessment of Effects

- 5.21 The proposed turbine will lie over 1.9km to the west of this listed building. The ZTV map predicts that the proposed turbine will be visible from this designated site at blade tip. However, because of the distance, its immediate village setting and intervening landscape components, where views of the turbine may be possible, they will likely be limited to occasional blade tip only, but only when appreciating the monument from the northeast and looking westwards, which would be fairly atypical.
- 5.22 Given the above considerations, although the sensitivity of this Grade II listed monument is considered to be High value (of National importance) the indirect visual magnitude of effect is considered to be *Negligible* and it is predicted that the overall significance of effect on the setting of the cottage will be *Minor* and also temporary for the lifetime of the turbine.

2) Rhiwson Uchaf house-and-byre (LB Ref: 18374)

Location and Context

- 5.23 This Grade II* listed property is positioned approximately 2.6km NE of the proposed turbine location. It is situated some 600m NNE of Drefach, reached by minor lane running NNE of B4338, and down a drive from right angle bend at Rhiwson Isaf, at a height of 155m AOD.

The Site

- 5.24 This building is a Mid to later 17th century long-house with end-entry to house from within byre attached to the south. Marked on 1840 Tithe map.

- 5.25 Whitewashed rubble stone with corrugated iron roofs over thatch, and roughcast stone end stacks, larger to S. Two-storey, long farmhouse range to N with irregular fenestration and no external door. Lower byre downhill to S. W front to field has first floor small-paned 16-pane fixed window to left, and c1900 4-pane horned sash with slate sill to right. Possible blocked window between. Ground floor has two large windows, c1900, missing sashes with slate sills and narrow centre c1900 4-pane horned sash. Oak lintels. E front, to yard, has small fireplace window to left, two first floor c1900 4-pane horned sashes to first floor centre and right. Ground floor dairy window 2-light unglazed to ground floor right of centre. Oak lintels, slate sills. Lean-to on N end with stone wall on W, the rest timber with zinc roof.
- 5.26 Byre has through passage adjoining S end of house, 4 doors with timber lintels to E, one to through passage only on W. S end loft window, blocked door below. Entry to house from through passage, ledged door in oak frame.
- 5.27 Listed as one of the very few long-house survivals in Cardiganshire, with scarfed trusses throughout; the survival of painted decoration in the parlour is extremely rare.

Immediate and Wider Setting

- 5.28 This listed building is set at the end of a long drive/track. The building is orientated SE-NW and faces another range of buildings set on the same orientation opposite. The house is surrounded by enclosed fields with mature trees screening views to the southwest toward Rhiwson Isaf.

Assessment of Effects

- 5.29 The proposed turbine will lie over 2.6km to the southwest of this designated property. The ZTV map predicts that the proposed turbine will be visible from this house. However, views of the turbine will be limited by distance when looking southwest and screened by intervening tree cover and other intervening landscape components.
- 5.30 Although the sensitivity of this monument is considered to be High value (of National importance) the indirect visual magnitude of effect is considered to be *Negligible* and it is predicted that the overall significance of effect on the setting of this monument would be *Minor* and also temporary for the lifetime of the turbine.

Undesignated Sites of Schedulable Quality indirectly affected

1) Clawdd Buarth Defended Enclosure (PRN: 8215)

Location and Context

- 5.31 This undesignated site is positioned only 520m ESE of the proposed turbine location at a height of approximately 215m AOD.

The Site

- 5.32 This undesignated defended enclosure is positioned on a large platform area on the southeast facing slope of the hill that overlooks the village of Llanwenog and the valley of the Nant Cledlyn at a height of approximately 215m AOD. This oval bank and ditch earthwork measures approximately 140m x 110m. A pond area is positioned at the external northern end of the enclosure with the original opening at the southern end. The site is presently heavily gorse covered. Positioned approximately 520m east-south-east of the proposed turbine location.

Immediate and Wider Setting

- 5.33 The immediate setting of Clawdd Buarth is a rural one, surrounded on all sides by open and enclosed fields laid out for pasture. The central part of the enclosure itself is covered extensively in gorse. The site has clear views looking northeast to south, looking over the Teifi Valley and curtailed by grass covered slopes to the rear of the site on its western side. Clawdd Buarth has clear and probably originally very strategic views of the Pen y Gaer Hillfort positioned directly southeast toward Llanybydder. Essentially this view looking eastwards very probably instigated the original positioning and setting of this defended enclosure, being sheltered and hidden by hillslopes to the west by having clear, aesthetic and defensive views looking eastwards.

Assessment of Effects

- 5.34 The proposed turbine will be positioned only 520m west-north-west from the Clawdd Buarth Defended Enclosure. The ZTV map predicts that the proposed turbine will be visible on the upper slope of the mountain along the skyline from this undesignated site when appreciating the site from the southeast and looking toward the turbine direction at the west-north-west. However, due to the topographic position of the defended enclosure and its setting considerations discussed above, particularly the fact that significant views from the site are confined to looking east over the Teifi Valley, the indirect effect on the setting of this undesignated site of schedulable quality is considered to be relatively low.
- 5.35 Given the above considerations, although the sensitivity of this undesignated site of schedulable quality is considered to be High value (of National importance) the indirect visual magnitude of effect is considered to be *Minor* and it is predicted that the overall significance of effect on the setting of the enclosure will be *Moderate/Minor* and also temporary for the lifetime of the turbine.

5.36 Summary of Indirect Effects on Designated sites within 5km

- 5.37 The ZTV map predicted that only one (1) of the SAM sites and one (1) undesignated site of schedulable quality within the 5km radius will potentially have visibility of the proposed turbine. The ZTV map also predicted that twenty-four (24) listed buildings within the 5km radius will also potentially have visibility of the turbine at blade tip. Although the ZTV map did predict that neither of the Registered Park & Gardens within the 5km radius will have visibility of the turbine, it did nevertheless predict that it could potentially have an indirect effect on part of the essential setting of the Park & Garden of *Alltyrodyn*, but that this effect would be of *Negligible* magnitude and therefore

of only *Minor* significance

- 5.38 Due to the relatively low height of the proposed turbine, 36.6m to blade tip, it was predicted that any designated sites over 3km away from the proposed turbine position, will not be *significantly* indirectly affected by the proposal due to distance and screening from intervening landscape components. As such the proposed turbine on these sites at this distance would have only a *Negligible* magnitude of effect and therefore of only *Minor* significance.
- 5.39 This meant that only one (1) Scheduled Ancient Monument (SAM) and four (4) Listed Buildings (LBs) needed to be appraised further. With regard to Listed Buildings sites, two of these LBs were Grade II listed milestones (LB No's. 18370 / 18369), which do not have a wider landscape setting. As such it was predicted that the proposed indirect effect on these two designated sites will be of *Negligible* magnitude and therefore of only *Minor* significance. As a result of this, the ZTV predicted that only two (2) LB's within the 3km radius need be appraised in more detail.
- 5.40 The appraisal concluded that none of the designated sites, SAMs or LBs, or undesignated will be significantly indirectly affected by the proposed turbine on land at Caeronnen Farm. A summary table giving the results of the assessment is shown in Table 7.

Table 7. Summary of detailed appraisal on Significance of Indirect Effects on Undesignated sites of schedulable quality and Designated Sites within 5km					
Site Ref	Site Name	Site Type	Distance from turbine	Magnitude of effect	Significance of Effect
SAM Ref: CM101)	Pen-y-Gaer Hillfort	Iron Age Hillfort	4.4km SE	Negligible	Minor (Temporary)
LB No: 18371	Drefach War Memorial	Post Medieval Memorial Statue	1.9km E	Negligible	Minor (Temporary)
LB No: 18374	Rhiwson Uchaf house-and-byre	Post Medieval House and Byre	2.6km NE	Negligible	Minor (Temporary)
PRN: 8215	Clawdd Buarth	Iron Age Defended Enclosure	520m ESE	Minor	Moderate/Minor (Temporary)
Other Sites					
PGW (Dy) 46(CER)	Alltyrolyn Park & Garden	Registered Park & Garden	3.3km WSW	Negligible	Minor (Temporary)
All other Medium value sites within 2km radius	Various	Various	Within 2km radius	Negligible	Negligible/Minor

5.42 Significance of the remains

5.43 In terms of rarity with regards to sites within the application area, the site visit identified no visible surface sites or features which were deemed to be of any importance. However, the cartographic analysis did record the former positions of one quarry site and a series of field boundaries, most still present on the site. These field boundaries are depicted on both the OS Surveyors drawing of 1814 and the Tithe Map of 1840 and all of the later OS maps. These field boundaries are most probably either 18th or else 19th century in date. These linear features are all medium value features and none of them will be directly impacted upon by the proposed development in any way.

5.99 Given the presence of an Iron Age defended enclosure only 520m to the southeast and the fact that the immediate area has apparently been party to a battle in the 10th century, the potential for discovery of any significant buried remains in the area of these periods is considered to be fairly high.

6 Mitigation

6.1 The best mitigation for the impact of any development on the archaeological resource is to avoid direct physical impacts upon all known archaeologically significant sites and features. Where avoidance is not considered possible or where the existence, exact location or extent of a feature is uncertain, additional mitigation measures may be required. A number of mitigation measures can be undertaken in advance of a planning application that will both inform, and potentially reduce or remove the need for archaeological mitigation at a later date. These options are outlined below:

Preservation In situ

6.2 This is the preferred option for all significant cultural heritage features and can be achieved by avoiding direct physical impact upon known features through careful consideration at the design stage. In this instance, there are no known heritage assets that will be directly impacted upon by the proposed development.

Evaluation

6.3 If there is an unavoidable impact upon a known archaeological site, or where it is uncertain if there will be an impact because the existence, exact location or extent of the or any archaeology is not known, then an archaeological evaluation (before the submission of the development scheme for planning approval) may be advisable in order to assess the presence or absence of archaeological features and their vulnerability from the development. The results of the evaluation can then inform decisions as to whether to re-design the scheme in order to avoid the features or to mitigate the development impact through 'preservation by record' (see 'excavation' below). In this instance, there are no known heritage assets that will be directly impacted upon by the proposed development.

Excavation

- 6.4 Where previously identified archaeological features cannot be avoided by the development, or are considered to be of insufficient importance to warrant preservation *in situ*, then 'preservation by record' can be undertaken to excavate and record archaeological deposits before development commences. Such mitigation may also be required as a condition of granting planning consent.

Watching brief

- 6.5 Development impact upon minor sites, or where the absence of archaeological features has not been established by other methods, can be mitigated against by undertaking an archaeological watching brief to record any unforeseen archaeological features that may be encountered during construction. This can however, result in delays during construction while archaeological recording is undertaken.
- 6.6 In this instance, the primary HER database records have shown that there is an Iron Age Defended Enclosure close to the site (Clawdd Buarth Defended Enclosure – PRN: 8215) only 520m to the east-south-east. The database records also record that the immediate landscape may have been party to a battle in the 10th century. However, the character and exact location of this battle is uncertain. Given these considerations, it is advised that any groundwork undertaken for the proposed development i.e the turbine foundation and service cable trench, is undertaken under an archaeological watching brief condition.

7 Assessment of Cumulative Effects

- 7.1 Within the 5km radius from the proposed application site, there are only seven (7) individual cumulative wind turbine sites. One (1) of these sites is now operational and six (6) have all been consented.
- 7.2 For details of each of these cumulative sites see Table 8 below.

Table 8. Cumulative Sites within 5km radius from the proposed Caeronnen Wind Turbine				
Site Name	Number of Turbines	Blade Height	Turbine distance	Planning Stage
Maesygarn Wind Turbine	1	35m	4.4km N	Consented
Hendre Wind Turbine	1	46.3m	5km NW	Consented
Cathal Wind Turbine,	2	17.7m	2.2km NW	Consented
Tanrhos Wind Turbine	1	34.6m	2km NW	Operational
Pant y Gogle Wind Turbine	2	20m	4.9km WSW	Consented

- 7.3 Of these seven turbines, the only turbine predicted that could have a slight cumulative adverse effect on heritage assets within the prescribed 5km radius, in combination with the proposed turbine at Caeronnen, will be the Tanrhos wind turbine, which is now operational and stands at 34.6m in height to blade tip in conjunction with the proposed Caeronnen turbine, there could be a slight cumulative effect on the Pen y Gaer Hillfort (SAM Ref: CM101) located at the far southeast end of Llanybydder. However, given that this hillfort lies over 4.4km away from the proposed Caeronnen turbine and approximately 6.1km away from the Tanrhos turbine, this cumulative effect will be of *Negligible* magnitude and therefore of *Minor* significance and also temporary for the lifetime of the turbine.

8 Assessment of Residual Effects

- 8.1 The long-term residual effects of the proposed development are considered to be neutral with regard to direct effects on cultural heritage.
- 8.2 There will be no loss of known cultural heritage assets, due to the position of the proposed turbine, access track, cable trench and electrical box.
- 8.3 Taking into account the known baseline and the archaeological mitigation, the residual direct effect on the archaeological resource is assessed to be of a *No Change* magnitude and therefore of *Negligible* significance. In terms of the residual in-direct effect on all of the assessed designated sites, this will inevitably only be temporary and only lasting the lifetime of the wind turbine. As such, the residual effect is considered to be *Negligible* and temporary, therefore of *Minor* significance.

9 Summary of Effects and Conclusions

9.1 Direct Effects and Conclusions

- 9.2 In summary, the desk based appraisal and site visit identified no direct physical effects from the proposal on any known heritage asset.
- 9.3 However, the primary HER database records have shown that there is an Iron Age Defended Enclosure close to the site (*Clawdd Buarth Defended Enclosure* – PRN: 8215) only 520m to the east-south-east. The database records also record that the immediate landscape may have been party to a battle in the 10th century. However, the character and exact location of this battle is uncertain. Given these considerations, it is advised that any groundwork undertaken for the proposed development i.e the turbine foundation and service cable trench, is undertaken under an archaeological watching brief condition.

9.4 Indirect Effects and Conclusions

- 9.5 In summary, the appraisal concluded that none of the undesignated sites of schedulable quality and designated sites, SAMs, LBs or Parks & Gardens, will be significantly indirectly affected by the proposed turbine on land at Caeronnen Farm. A summary table giving the results of the appraisal is shown in Table 7.

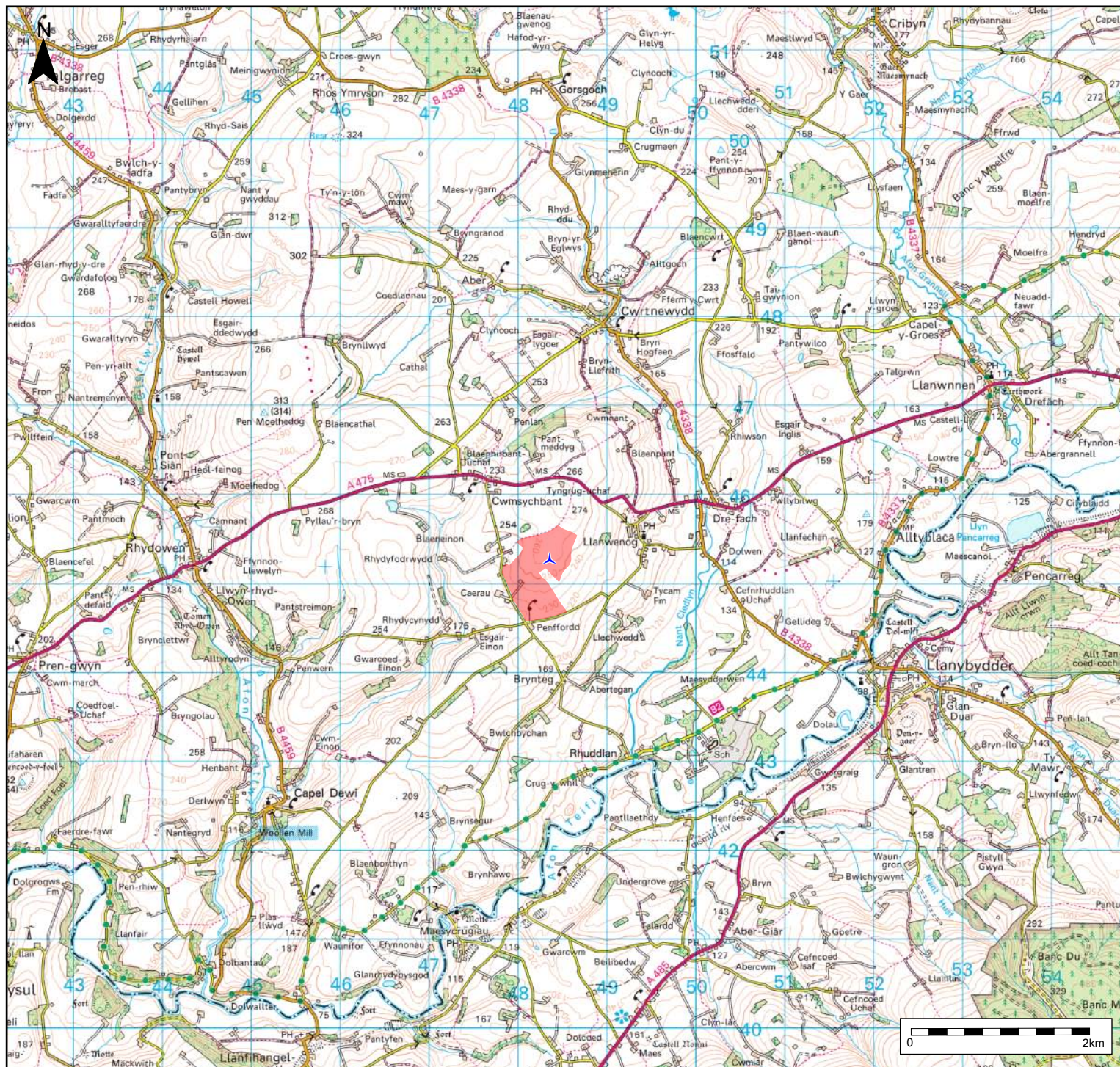
- 9.6 With regards to potential cumulative effects, the only wind turbine that could potentially have a cumulative effect on one designated heritage asset within the 5km radius of the proposed turbine at Caeronnen Farm, will be the operational turbine at Tanrhos. This turbine is positioned approximately 6.1km northwest of Pen y Gaer Hillfort (SAM Ref: CM101) and the proposed turbine at Caeronnen Farm will be positioned approximately 4.3km to the northwest as well. However, given these distances, topographic considerations and intervening landscape components, it is considered that the combined cumulative effect of this turbine with the proposed turbine at Caeronnen on this heritage asset will be of *Negligible* magnitude and therefore of only *Minor* significance and only last the lifetime of the turbines.

10 References

- Ref 1 Welsh Office Circular 60/96 (Planning and the Historic Environment: Archaeology)
- Ref 2 *Design Manual for Roads and Bridges* (DMRB, Volume 11, Section 3, part 2 HA 208/07)
- Ref 3 *Planning Policy Statement 5 (PPS5)*, March 2010, *Planning for the Historic Environment: Historic Environment Planning Practice Guide (2010)*
- Ref 4 Colcutt, S 1999, *The setting of Cultural Heritage Features*.
- Ref 5 Ceredigion LANDMAP Historic Landscape
- Ref 6 *The Setting of Heritage Assets (2012)*. English Heritage

APPENDIX I:

Figures



Legend

- Study Area
- ★ Proposed turbine location

Approximate Scale (@ A4): 1:50,000

Date: October 2015

Prepared by:

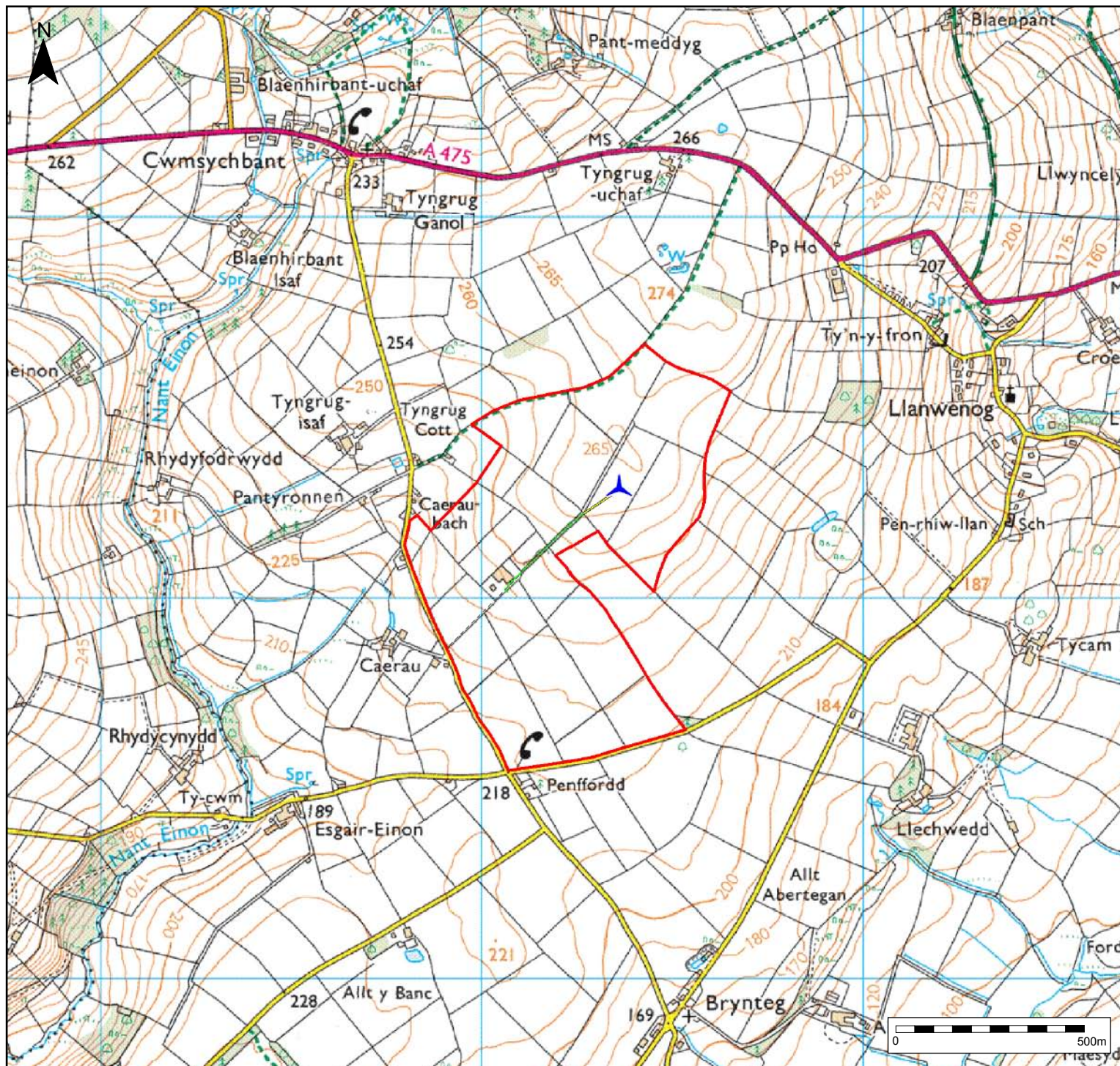

Client:



On behalf of:
 Mr Roy Rees

Project Title:
 Caeronsen Wind Turbine

Figure 1.
 Site Location



Legend

- Study Area
- ▲ Proposed turbine location
- Access and maintenance track
- - - Indicative Grid Connection route

Approximate Scale (@ A4): 1:10,000

Date: October 2015

Prepared by:

Heritage
Recording Services Wales

Client:

dulas
renewable energy services
solar wind hydro biomass

On behalf of:

Mr Roy Rees

Project Title:

Caeronnen Wind Turbine

Figure 2(a).

Site Plan



Legend

- Ownership Boundary
- Planning Application Boundary
- ▲ Turbine Location (248370, 245276)
- Indicative Site Access
- Control unit
- Crane Hardstanding
- Foundation
- Indicative Grid Connection
- Indicative Grid Connection Route
- Grid Cabinet

Approximate Scale (@ A4): 1:500

Date: October 2015

Prepared by:

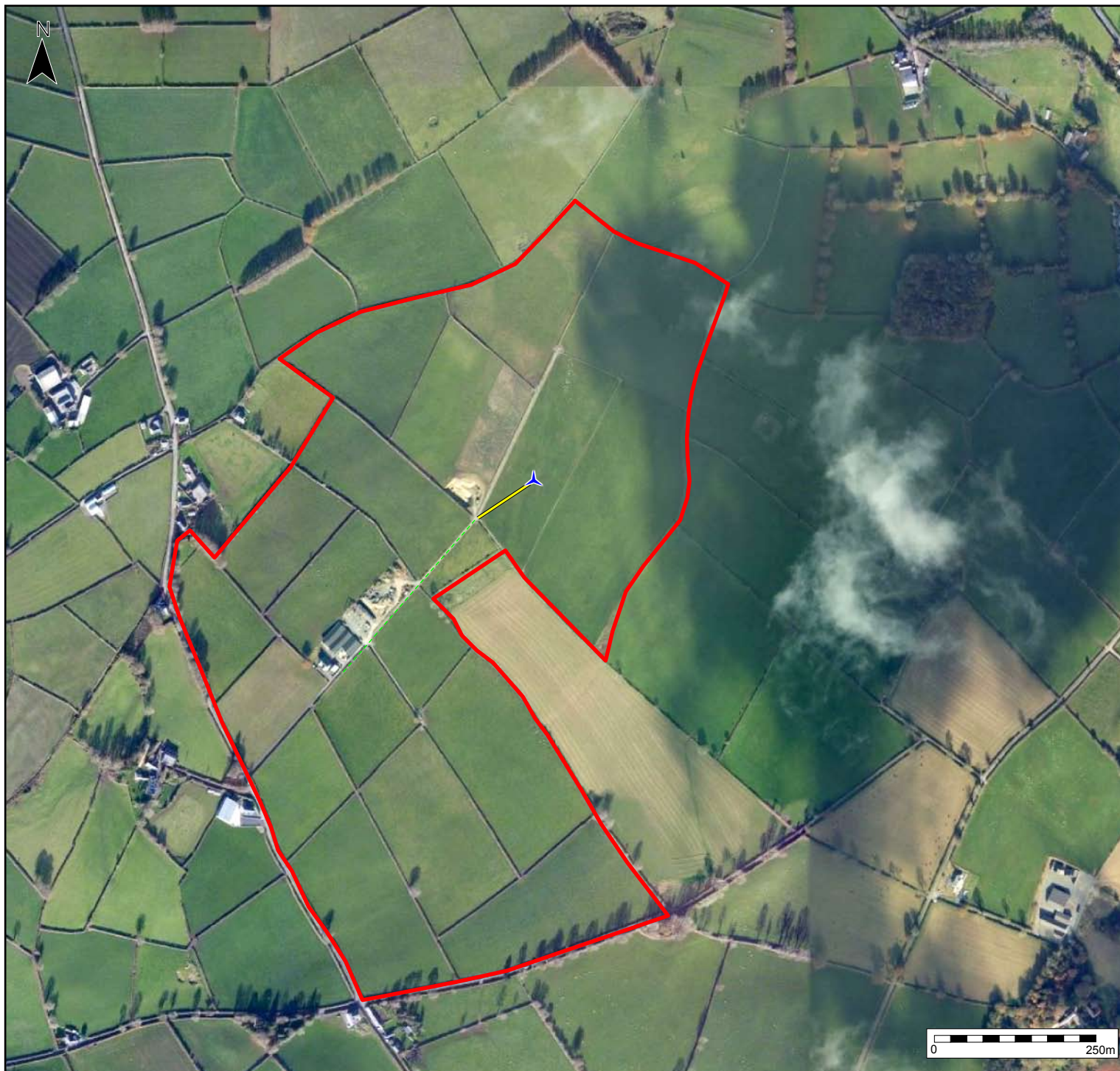

Client:

 solar wind hydro biomass

On behalf of:
 Mr Roy Rees

Project Title:
 Caeronnen Wind Turbine

Figure 2(b). Site Block Plan



Legend

- Study Area
- ▲ Proposed turbine location
- Access and maintenance track
- Indicative Grid Connection route

Approximate Scale (@ A4): 1:8,000

Date: October 2015

Prepared by:

Heritage
Recording Services Wales

Client:

dulas
solar wind hydro biomass

On behalf of:

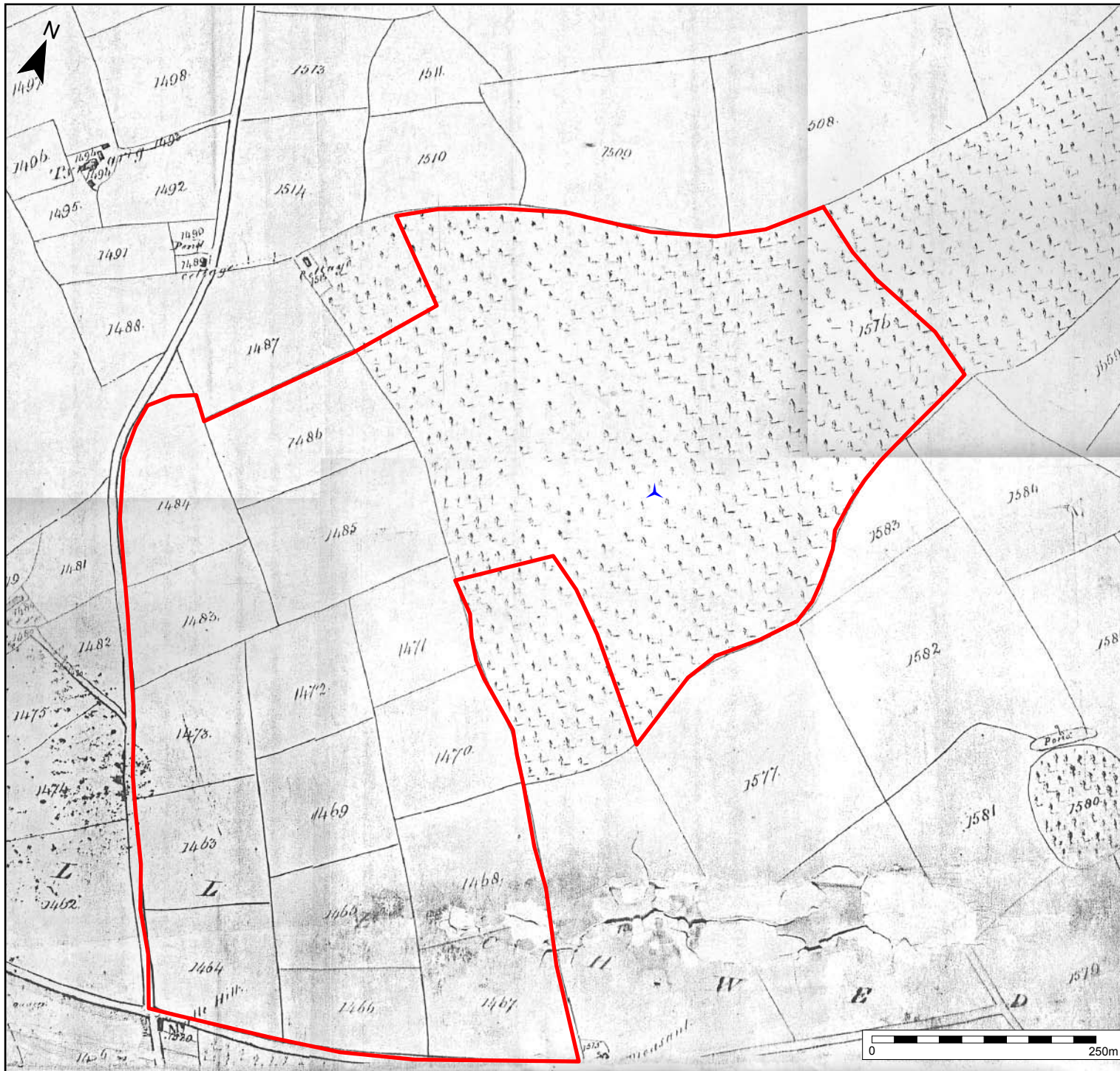
Mr Roy Rees

Project Title:

Caeronnen Wind Turbine

Figure 3.

OS Aerial Photo (2014)



Legend

- Study Area
- ▲ Proposed turbine location

Approximate Scale (@ A4): 1:5,000

Date: October 2015

Prepared by:

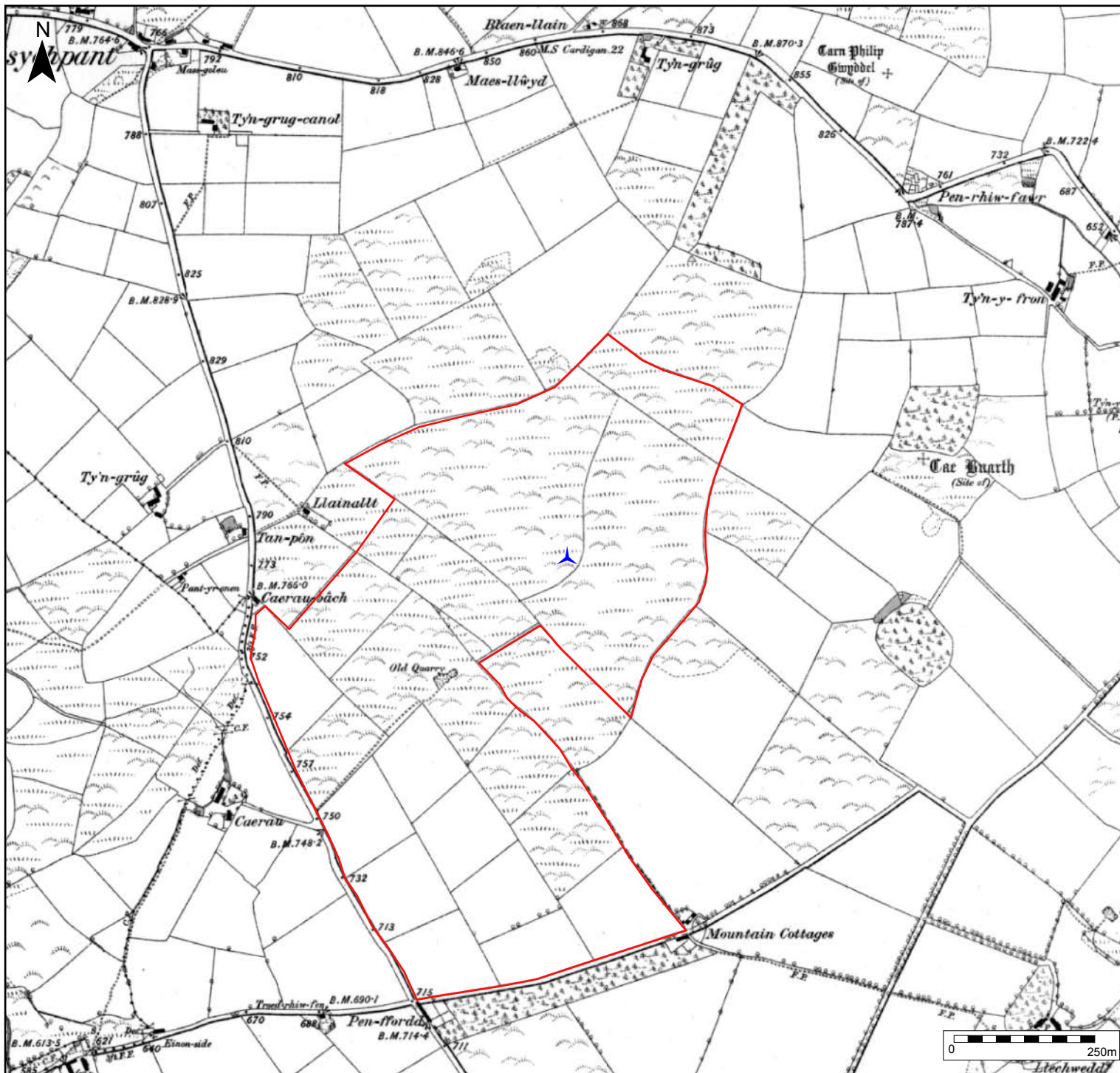

Client:

 solar wind hydro biomass

On behalf of:
 Mr Roy Rees

Project Title:
 Caeronnen Wind Turbine

Figure 5. Part of Tithe Map of Llanwenog Parish (1840)



Legend

- Study Area
- ▲ Proposed turbine location

Approximate Scale (@ A4): 1:7,000

Date: October 2015

Prepared by:

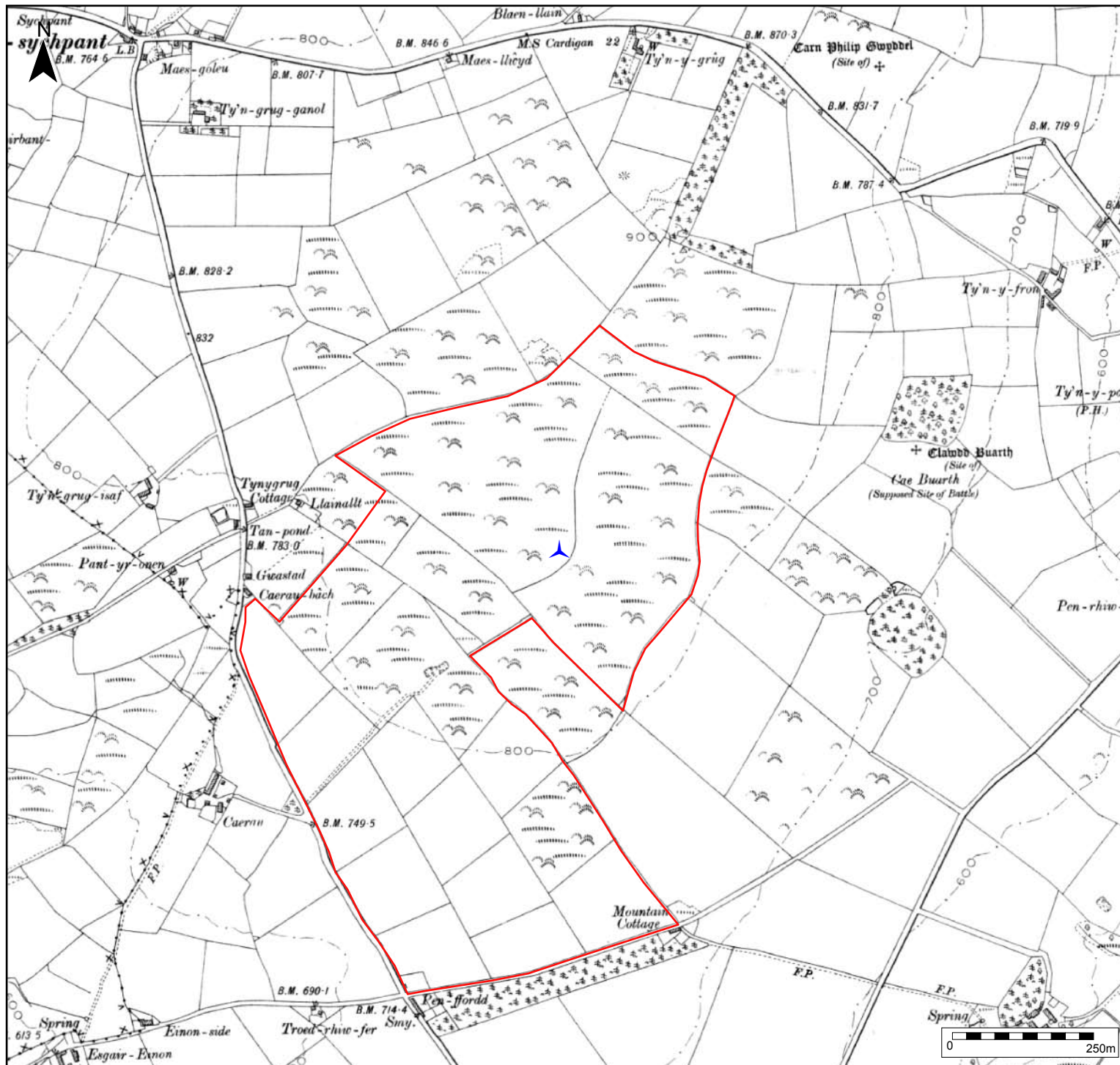

Client:

solar wind hydro biomass

On behalf of: Mr Roy Rees

Project Title: Caeronnen Wind Turbine

Figure 6. OS First Edition Map (1887)



Legend

- Study Area
- ▲ Proposed turbine location

Approximate Scale (@ A4): 1:7,000

Date: October 2015

Prepared by:

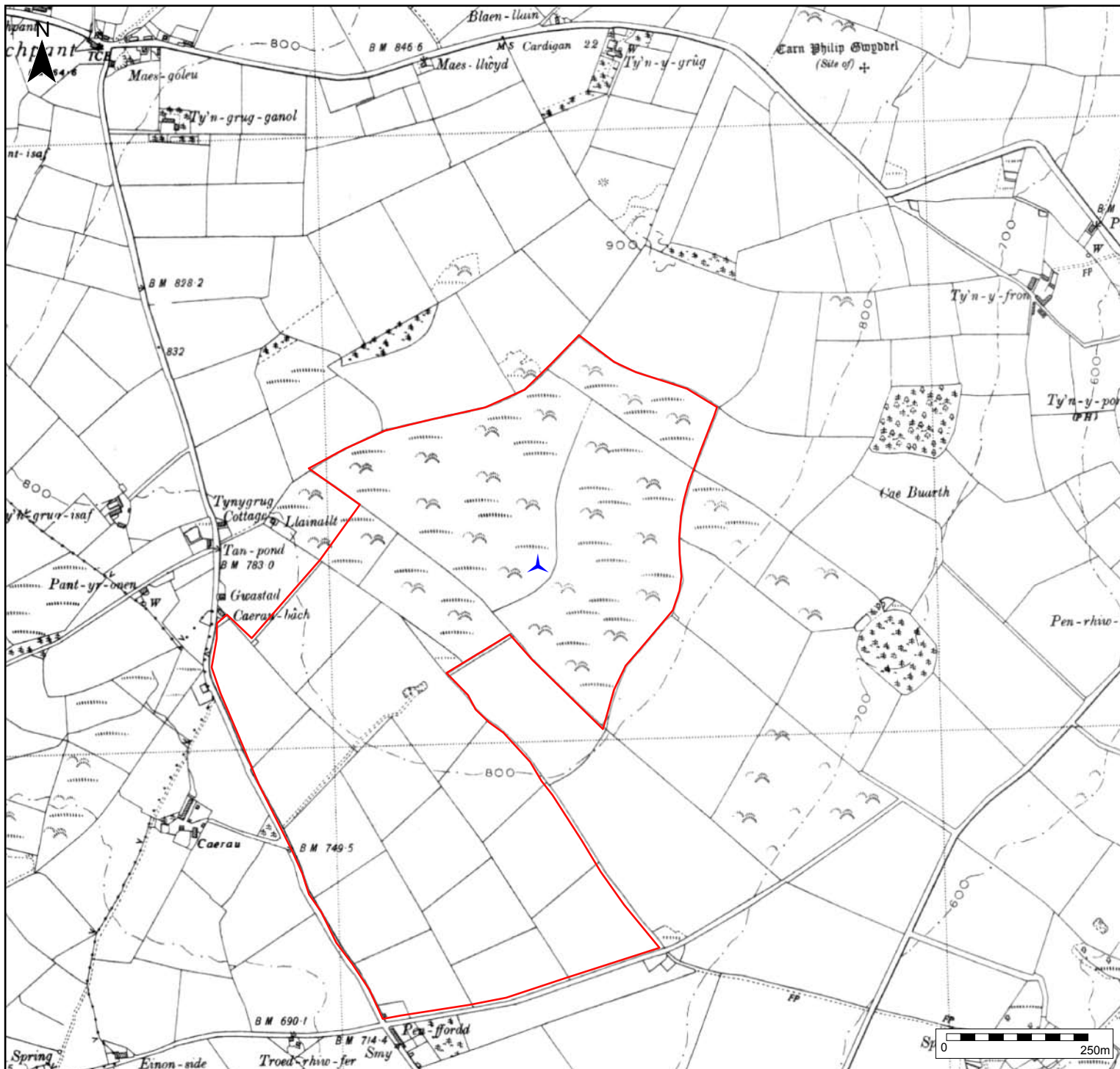

Client:

 solar wind hydro biomass

On behalf of:
 Mr Roy Rees

Project Title:
 Caeronnen Wind Turbine

Figure 7. OS Second Edition Map (1906)



Legend

- Study Area
- ▲ Proposed turbine location

Approximate Scale (@ A4): 1:7,000

Date: October 2015

Prepared by:

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Recording Services Wales

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dulas
renewable energy
solar wind hydro biomass

On behalf of:

Mr Roy Rees

Project Title:



Caeronnen Wind Turbine

Figure 8.

OS 1948 - 1953 Edition Map



Legend

-  Study Area
-  Proposed turbine location

Approximate Scale (@ A4): 1:8,000

Date: October 2015

Prepared by:

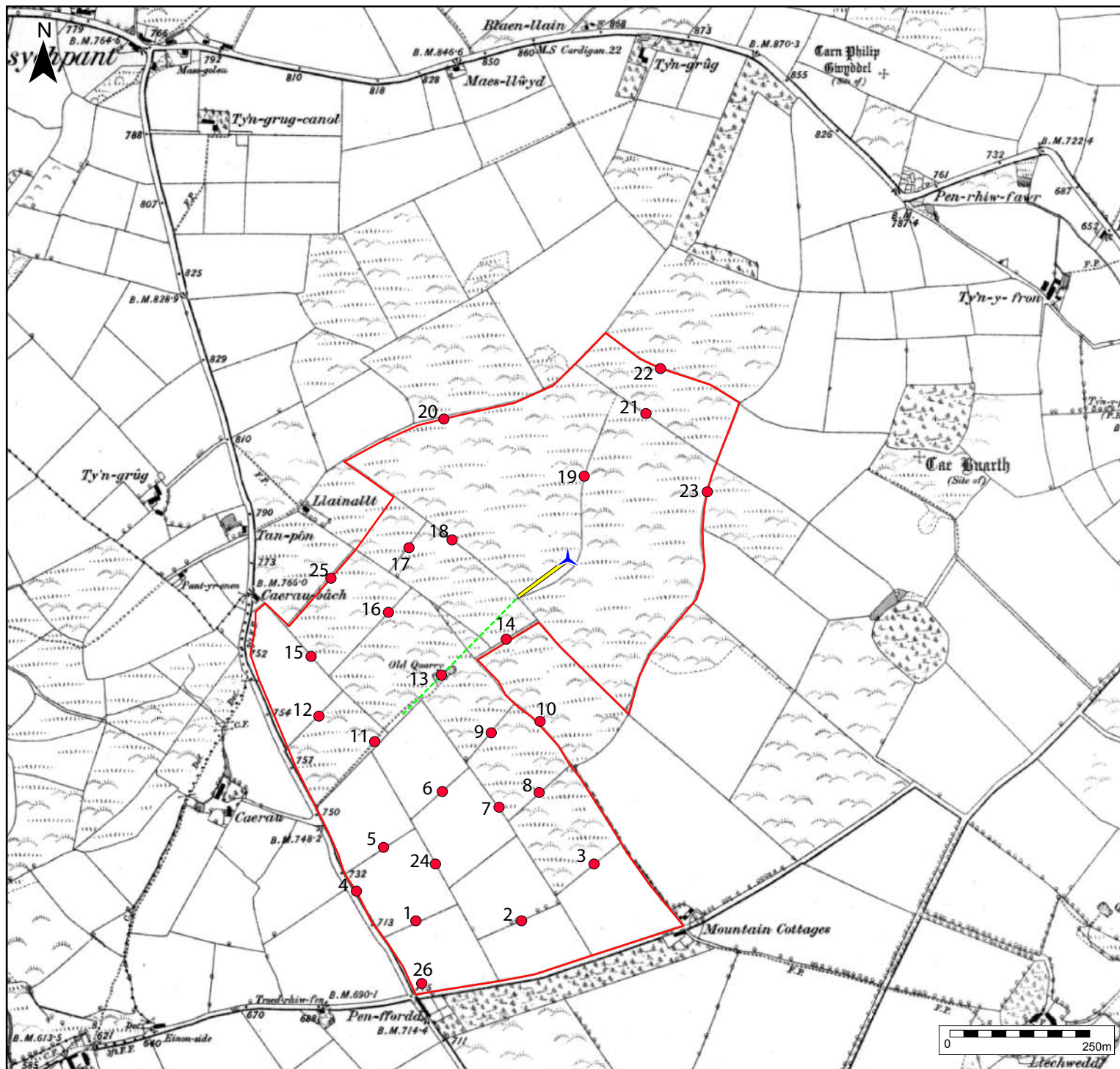

Client:

solar wind hydro biomass

On behalf of:
Mr Roy Rees

Project Title:
Caeronnen Wind Turbine

Figure 9. RAF Vertical Aerial Photo (1946)



Legend

- Study Area
- ★ Proposed Turbine location
- Proposed Access track
- Indicative Grid connection route
- Heritage Asset

Approximate Scale (@ A4): 1:7,000

Date: October 2015

Prepared by:

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Recording Services Wales

Client:

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renewable energy solutions
solar wind hydro biomass

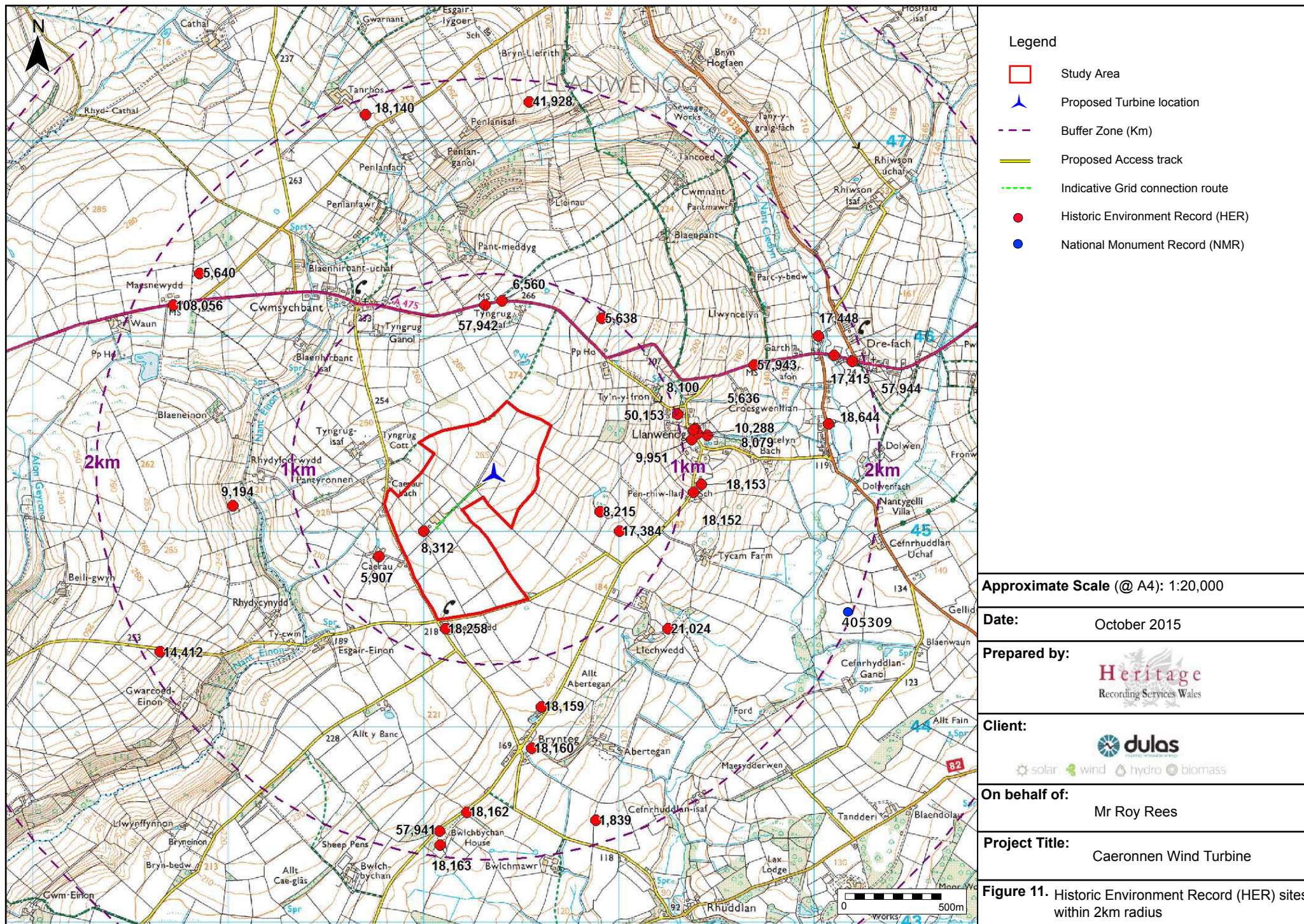
On behalf of:

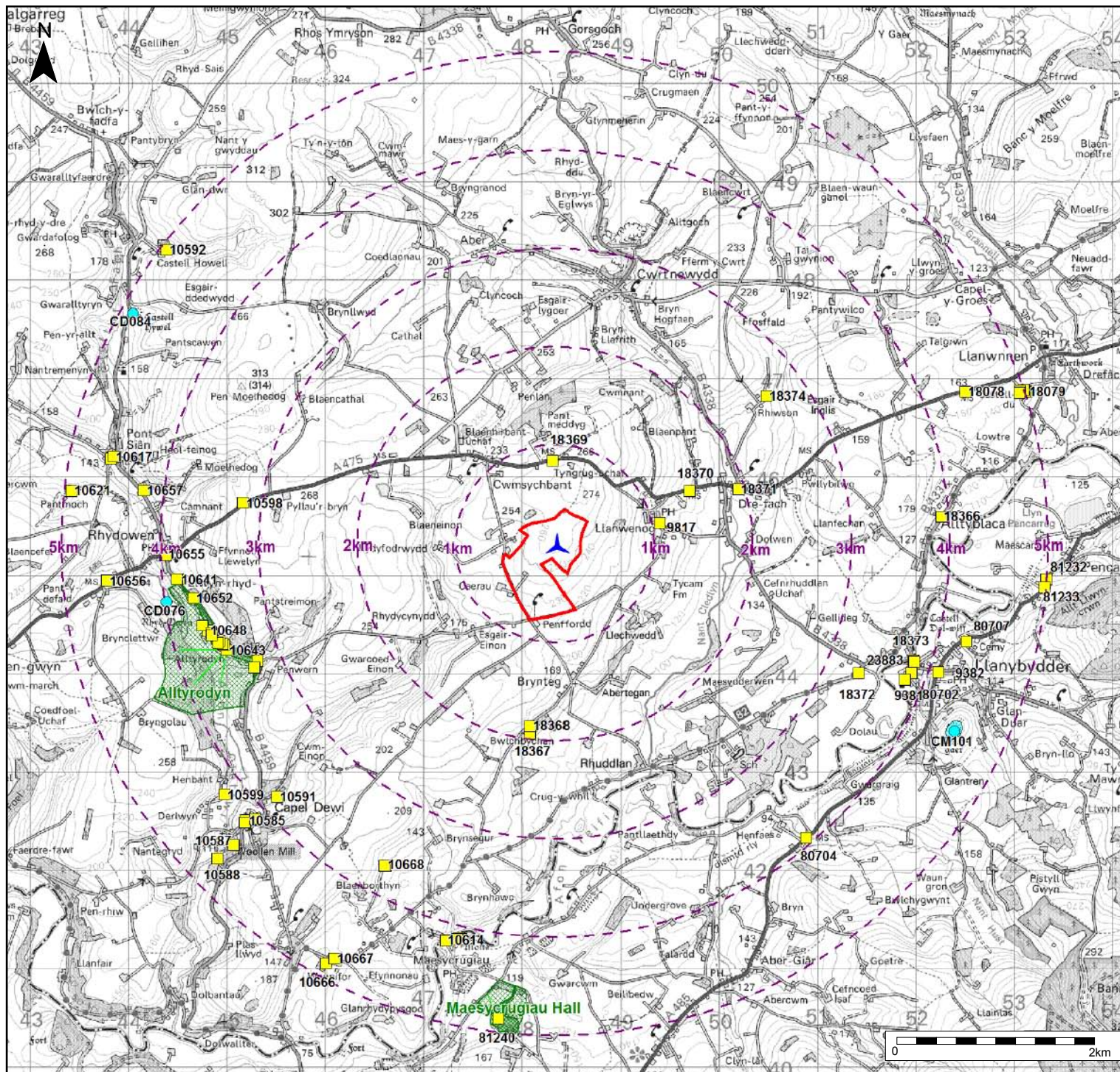
Mr Roy Rees

Project Title:

Caeronnen Wind Turbine

Figure 10. Heritage Assets within Study Area
(overlying OS First Edition Map 1887)





Legend

- Study Area
- ▲ Proposed Turbine location
- Buffer Zones (Km)
- Scheduled Ancient Monuments (SAMs)
- Scheduled Areas
- Listed Buildings (LBs)
- Registered Park & Garden (P&G)
- Essential Setting (P&G)
- Significant View (P&G)

Approximate Scale (@ A4): 1:40,000

Date: October 2015

Prepared by:

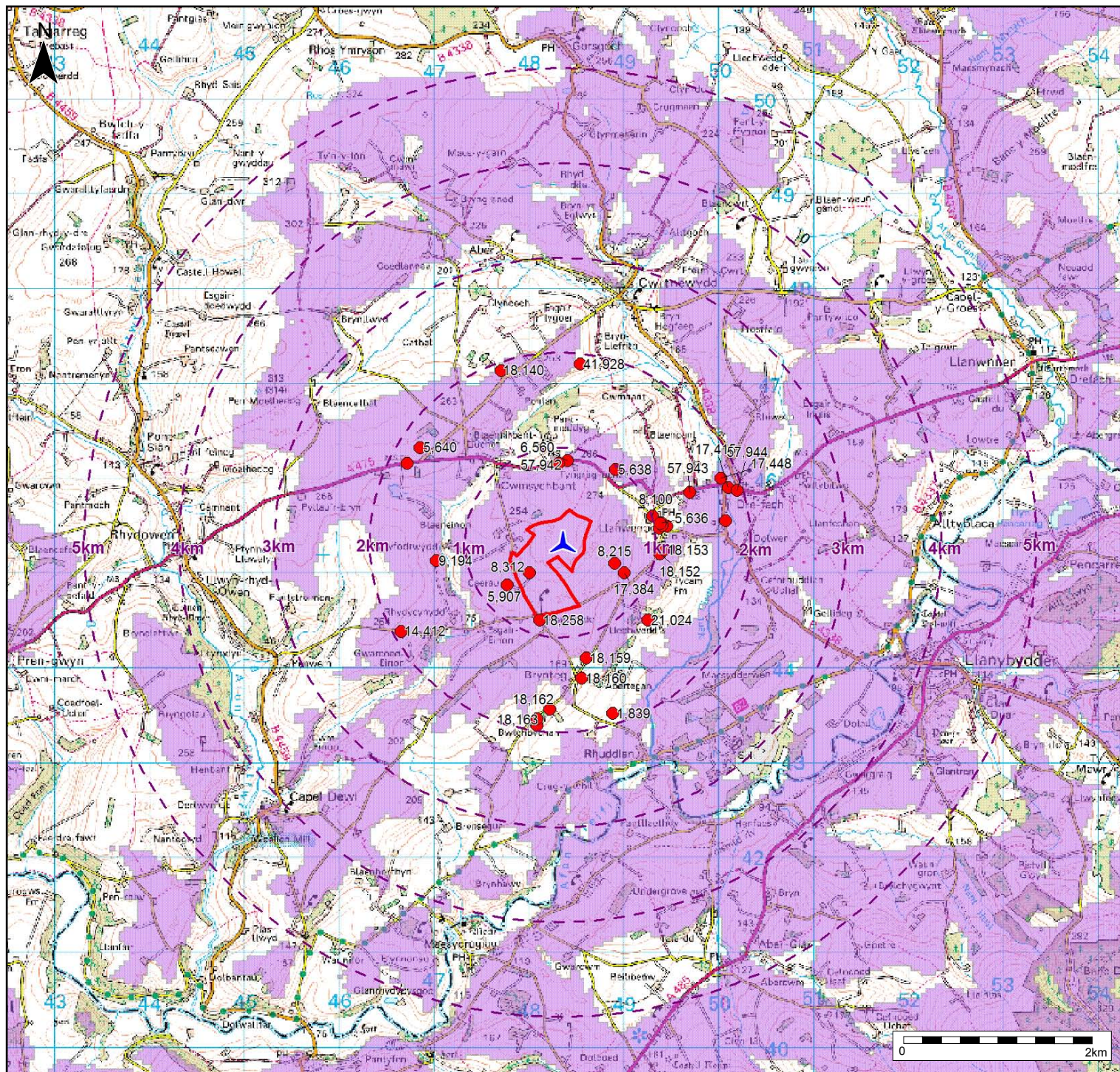

Client:

On behalf of:
 Mr Roy Rees

Project Title:
 Caernonnen Wind Turbine

Figure 12.
 Designated Sites within 5km



Legend

- Study Area
- ▲ Proposed Turbine location
- Buffer Zones (Km)
- Historic Environment Record Sites (HER)
- Zone of Theoretical Visibility at Blade Tip

Approximate Scale (@ A4): 1:40,000

Date: October 2015

Prepared by:

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Recording Services Wales

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solar wind hydro biomass

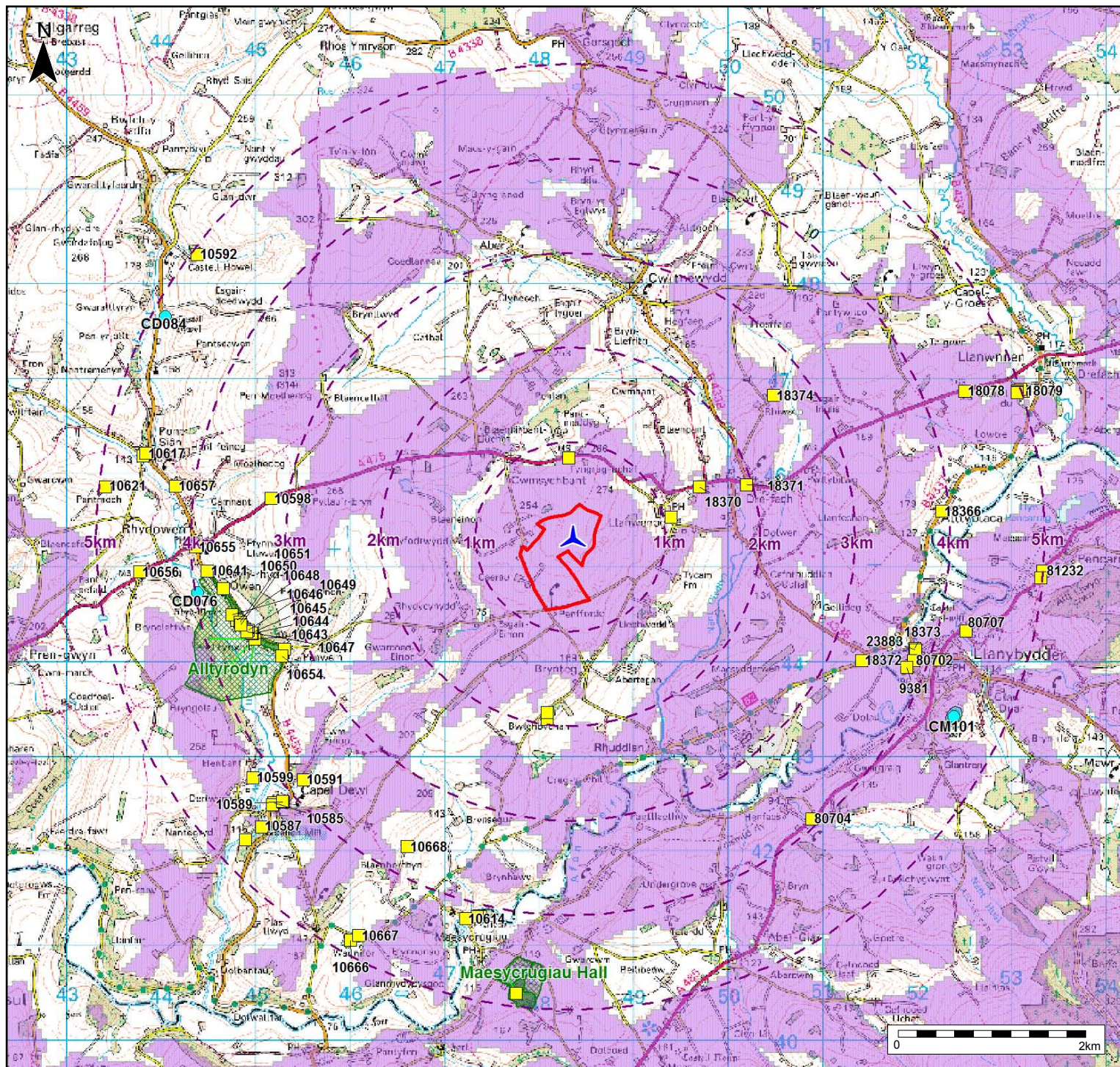
On behalf of:

Mr Roy Rees

Project Title:

Caeronnen Wind Turbine

Figure 14. ZTV Map at Blade Tip and HER Sites within 2km radius



Legend

- Study Area
- ▲ Proposed Turbine location
- Buffer Zones (Km)
- Scheduled Ancient Monuments (SAMs)
- Scheduled Areas
- Listed Buildings (LBs)
- Registered Park & Garden (P&G)
- Essential Setting (P&G)
- Significant View (P&G)
- Zone of Theoretical Visibility (ZTV) at Blade Tip

Approximate Scale (@ A4): 1:40,000

Date: October 2015

Prepared by:

Heritage
Recording Services Wales

Client:

dulas
solar wind hydro biomass

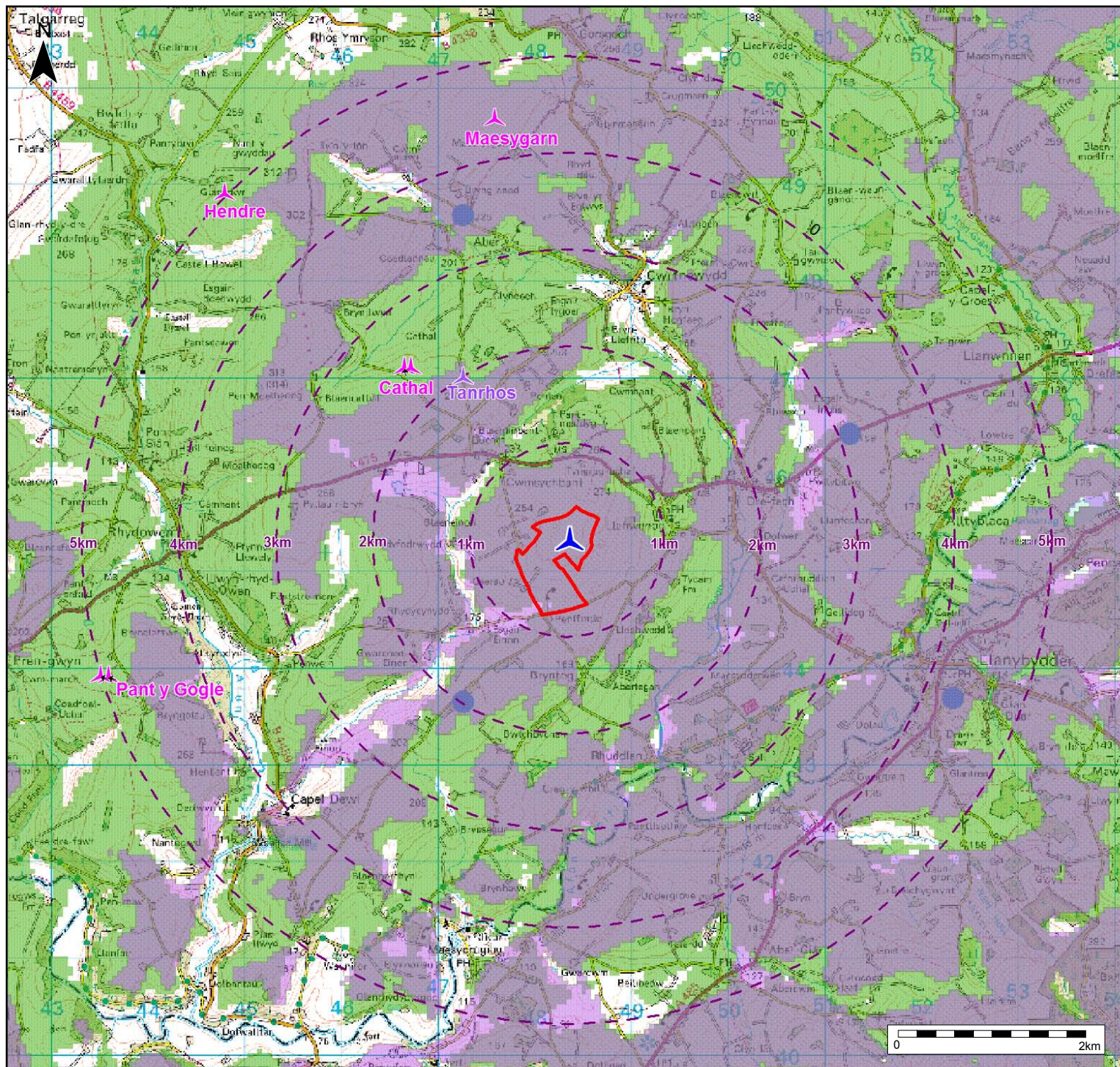
On behalf of:

Mr Roy Rees

Project Title:

Caeronnen Wind Turbine

Figure 15. ZTV Map at Blade Tip and Designated Sites within 5km.



Legend

- Study Area
- ▲ Proposed Turbine location
- ▲ Consented Turbine
- ▲ Operational Turbine
- Buffer Zones (Km)
- Proposed turbine Zone of Theoretical Visibility (ZTV) at Blade Tip
- Cumulative Turbine Zone of Theoretical Visibility (ZTV) at Blade Tip

Approximate Scale (@ A4): 1:40,000

Date: October 2015

Prepared by:

Heritage
Recording Services Wales

Client:

dulas
solar wind hydro biomass

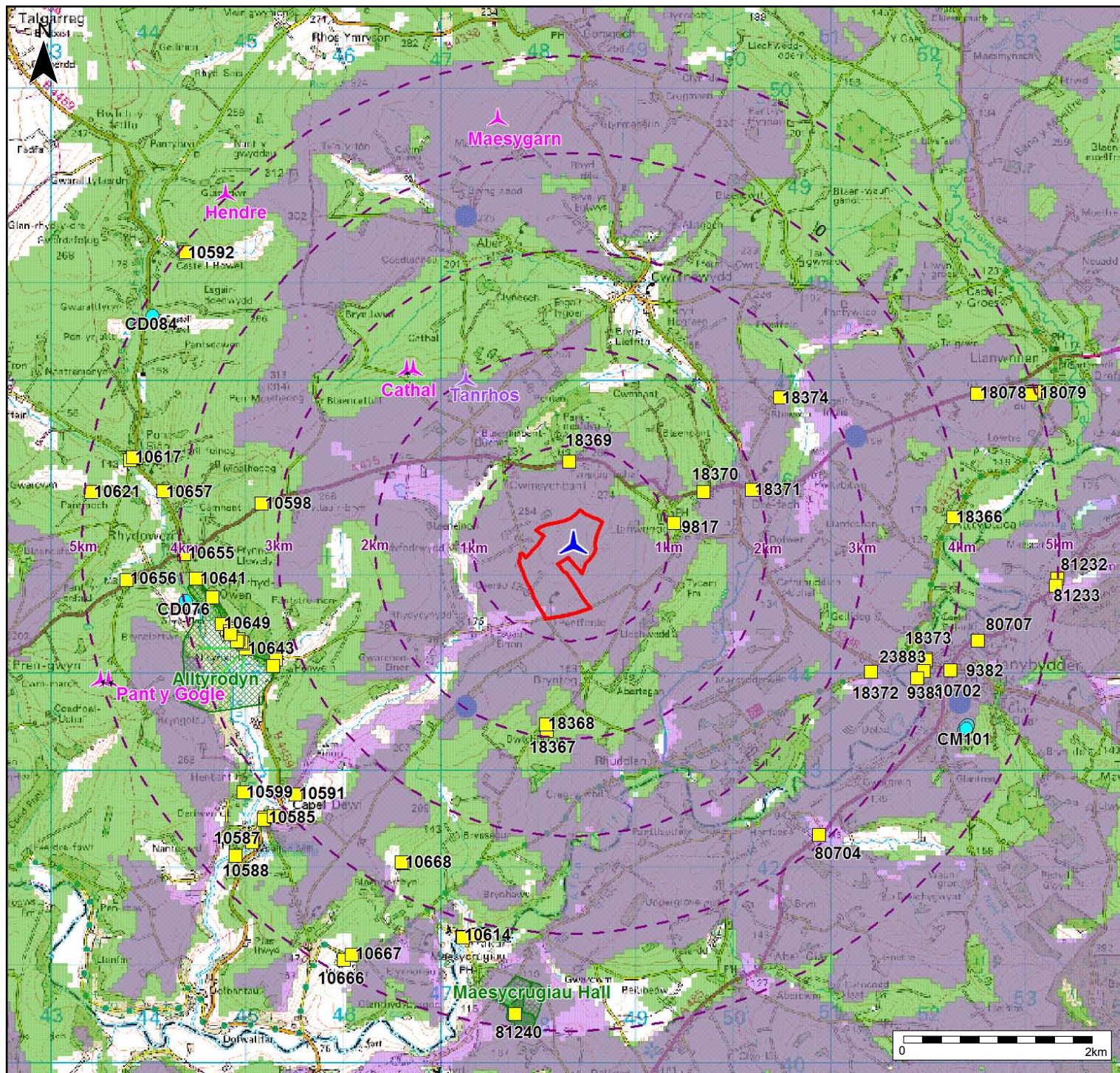
On behalf of:

Mr Roy Rees

Project Title:

Caeronnen Wind Turbine

Figure 16. Cumulative Sites within 5km overlying ZTV at Blade Tip



Legend

- Study Area
- ▲ Proposed Turbine location
- ▲ Consented Turbine
- ▲ Operational Turbine
- Buffer Zones (Km)
- Scheduled Ancient Monuments (SAMs)
- Scheduled Areas
- Listed Buildings (LBs)
- Registered Park & Garden (P&G)
- Essential Setting (P&G)
- > Significant View (P&G)
- Proposed turbine Zone of Theoretical Visibility (ZTV) at Blade Tip
- Cumulative Turbine Zone of Theoretical Visibility (ZTV) at Blade Tip

Approximate Scale (@ A4): 1:40,000

Date: October 2015

Prepared by:

Heritage
Recording Services Wales

Client:

dulas
solar wind hydro biomass

On behalf of:

Mr Roy Rees

Project Title:

Caeronnen Wind Turbine

Figure 17. Cumulative ZTV with Designated Sites within 5km

APPENDIX II:

Photo plates

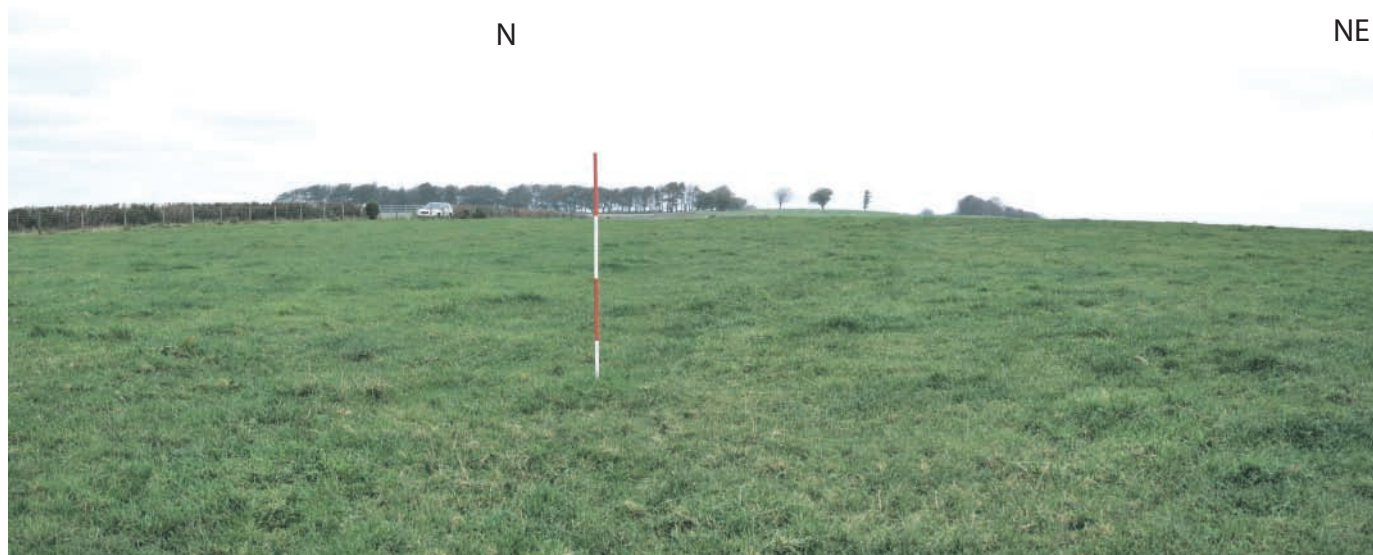



Plate 1. Spliced view looking north from proposed turbine location.



Plate 2. Spliced view looking northeast to east from proposed turbine location.

Project Title:	Caeronnen Wind Turbine	Photo Plates No. 1 and 2	
Date taken:	October 2015		
Photographer:	Richard Scott Jones		

E

SE



Plate 3. Spliced view looking east to southeast from proposed turbine location.

SW

W



Plate 4. Spliced view looking southwest to west from proposed turbine location.

Project Title: Caeronnen Wind Turbine

Date taken: October 2015

Photographer: Richard Scott Jones

Photo Plates No. 3 and 4

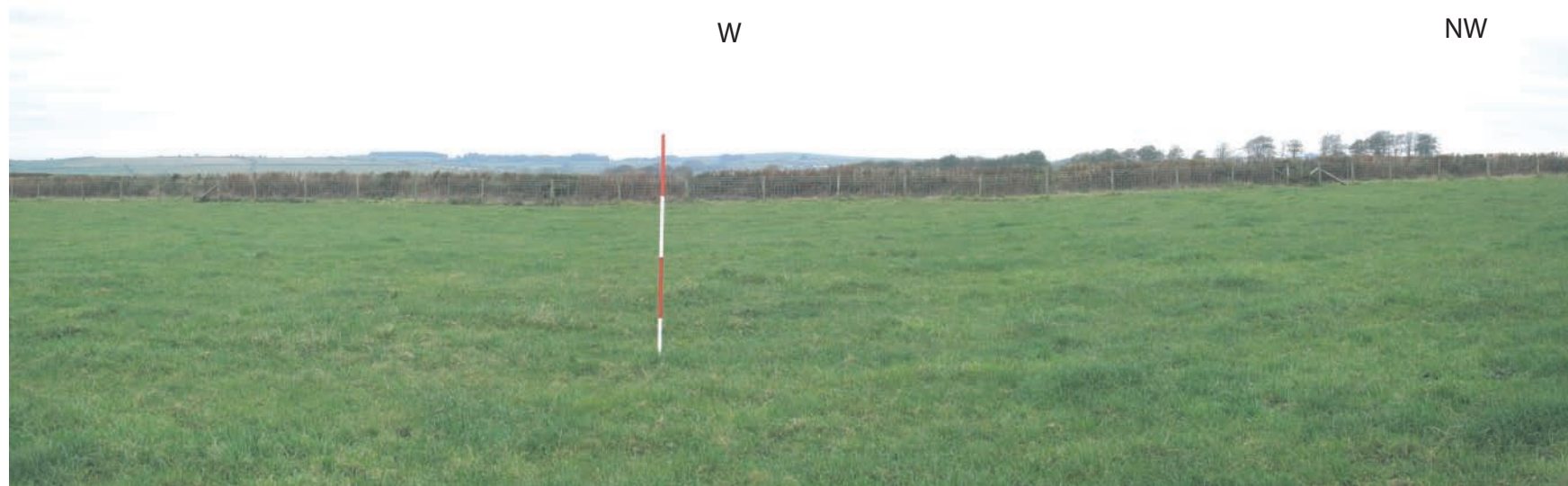


Plate 5. Spliced view looking west to northwest from proposed turbine location.



Plate 6. Spliced view looking south to southwest from proposed turbine location.

Project Title:	Caeronnen Wind Turbine	Photo Plates No. 5 and 6	
Date taken:	October 2015		
Photographer:	Richard Scott Jones		



Plate 7. Proposed turbine location in field. Looking southwards.



Plate 8. View of proposed area of access track. Looking southwest.



Plate 9. View of Clawdd Buarth Defended Enclosure (PRN: 8215) looking southeast from NGR: SN 4853 4537, approximately 10 meters below proposed turbine location.

Project Title: Caeronnen Wind Turbine

Date taken: October 2015

Photographer: Richard Scott Jones

Photo Plates No. 7 - 9




Plate 10. Clawdd Buarth Defended Enclosure (PRN: 8215). Looking northeast from NGR: SN 4888 4499.



Plate 11. View of Clawdd Buarth Defended Enclosure (PRN: 8215). Looking north.



Plate 12. View northward toward proposed turbine location from west embankment of Clawdd Buarth Defended Enclosure (PRN: 8215).

Project Title:	Caeronnen Wind Turbine	Photo Plates No. 10 - 12	
Date taken:	October 2015		
Photographer:	Richard Scott Jones		

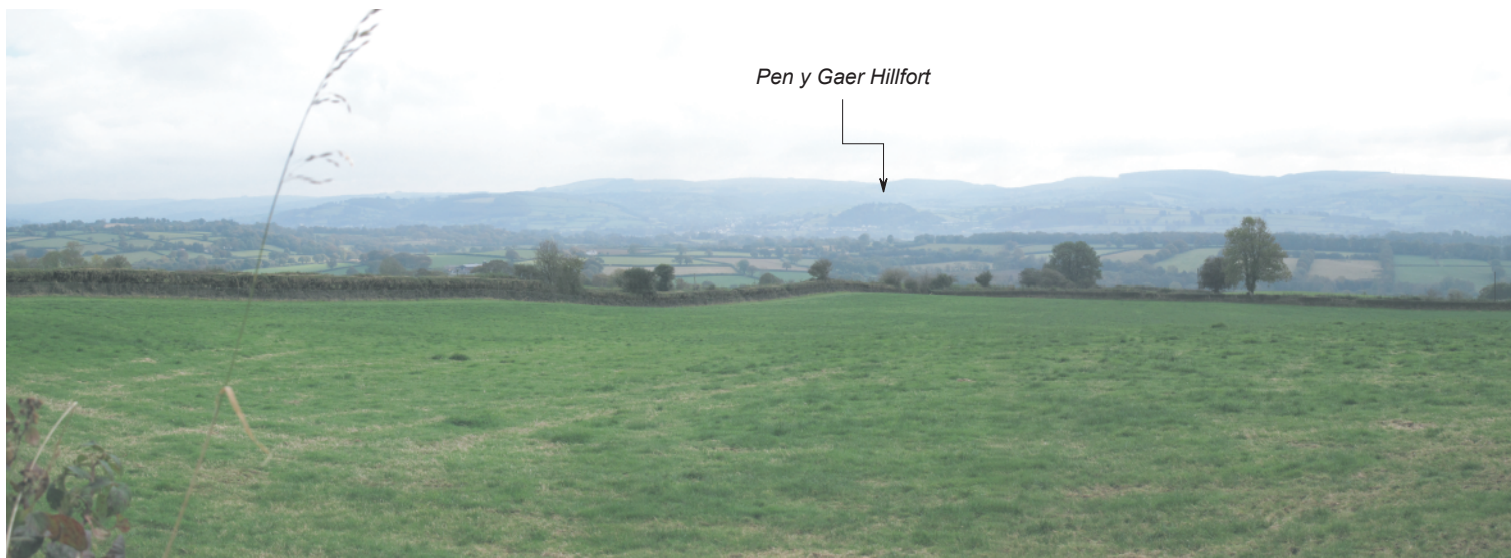


Plate 13. View southeast from Clawdd Buarth Iron Age Defended Enclosure (PRN: 8215), looking toward Pen y Gaer Iron Age Hillfort (SAM Ref: CM101).



Plate 14. View of Drefach War Memorial (LB No. 18371). Looking WSW toward proposed turbine location.

Project Title:	Caeronnen Wind Turbine	Photo Plates No. 13 and 14	
Date taken:	October 2015		
Photographer:	Richard Scott Jones		

APPENDIX III:

Site Gazetteer

Status:		Grade:		Community:	Llanwenog
PRN:	6560	Type:	Cottage	Period:	Post-Medieval
Name:	BLAENLAIN				
Summary:	Cottage recorded by RCAHM in 1976. Condition unknown. RPS September 2001				
Status:		Grade:		Community:	Llanwenog
PRN:	8079	Type:	Holy Well	Period:	Medieval
Name:	FFYNON WENOG				
Summary:	Tradition, recorded by Francis Jones (1954), of a curative well located near Llanwenog church, the waters of which were especially beneficial to children with weak backs. The site is not recorded on historic Ordnance Survey maps or modern mapping. A rec				
Status:		Grade:		Community:	Llanwenog
PRN:	8100	Type:	Prayer Stations	Period:	Medieval
Name:	ST GWENOG'S CHURCH				
Summary:					
Status:		Grade:		Community:	Llanwenog
PRN:	8215	Type:	Defended Enclosure	Period:	Roman,Iron Age
Name:	CLAWDD BUARTH				
Sunnary:					
Status:		Grade:		Community:	Llanwenog
PRN:	8312	Type:	Battle Site	Period:	Early Medieval
Name:	BATTLE OF LLANWENOG				
Summary:	It is recorded in the Brut y Tywysogion that a great battle took place in Llanwenog. The date is uncertain and the combatants unclear but it would seem to have been in the 10th century. Traditionally the battle is connected with Clawdd Buarth, PRN8215.				
Status:		Grade:		Community:	Llanwenog
PRN:	9194	Type:	Farmstead	Period:	Post-Medieval
Name:	RHYDYFODRWY				
Summary:	Recorded as a deserted farmstead complex, including a dwelling, outbuildings and enclosure, in 1979. RPS October 2001.				
Status:		Grade:		Community:	Llandysul
PRN:	9951	Type:	Defended Enclosure	Period:	Prehistoric
Name:	TY'N-Y-PORTH				
Summary:	Ty'n Y Porth is a much-reduced circular earthwork enclosure situated on a moderate east-facing slope at 160m above sea level. It is clearly visible on aerial photographs of the 1950s as a circular earthwork.				
Status:		Grade:		Community:	Llanwenog
PRN:	10288	Type:	Deleted	Period:	Unknown
Name:	ST GWENOG DEDICATION				
Summary:	Record deleted during Cadw Early Medieval Ecclesiastical Sites Project PRN 44753. Record now merged with PRN 50153. NDL 2004				
Status:		Grade:		Community:	Llanwenog

PRN: 14412	Type: Enclosure	Period: Unknown	NGR: SN4664744381
Name: GWARCOED EINON			
Summary:			
Status:	Grade:	Community:	Llandysul
PRN: 17384	Type: School	Period: Post-Medieval	NGR: SN4945
Name:			
Summary:			
Status:	Grade:	Community:	Llanwenog
PRN: 17415	Type: Bridge	Period: Post-Medieval	NGR: SN501459
Name:			
Summary:			
Status:	Grade:	Community:	Llanwenog
PRN: 17448	Type: Fulling Mill	Period: Post-Medieval	NGR: SN50024600
Name: DOLWINION MILL			
Summary:			
Status:	Grade:	Community:	Llanwenog
PRN: 18140	Type: Quarry	Period: Post-Medieval	NGR: SN4770147132
Name:			
Summary:			
Status:	Grade:	Community:	Llanwenog
PRN: 18152	Type: School	Period: Post-Medieval	NGR: SN49384520
Name:			
Summary:			
Status:	Grade:	Community:	Llanwenog
PRN: 18153	Type: Sand Pit	Period: Post-Medieval	NGR: SN49424524
Name:			
Summary:			
Status:	Grade:	Community:	Llanwenog
PRN: 18159	Type: Quarry	Period: Post-Medieval	NGR: SN486441
Name: GWYNFRYN QUARRY			
Summary:			
Status:	Grade:	Community:	Llanwenog
PRN: 18160	Type: Chapel	Period: Post-Medieval	NGR: SN48554389
Name: BRYN TEG			
Summary:			
Status:	Grade:	Community:	Llanwenog
PRN: 18162	Type: Lodge	Period: Post-Medieval	NGR: SN48224356
Name: BWLCH-BYCHAN LODGE			
Summary: Single storey stone build lodge at gate to Bwlch Byrchan Mansion. Slightly removed from gates and in a delapidated condition. Gateposts record year of construction "A.M. 5861" i.e. 1851 by			

the mason. "O. James." CAS.

Status: **Grade:** **Community:** Llanwenog

PRN: 18163 **Type:** Mansion **Period:** Post-Medieval **NGR:** SN4808243392
Name: BWLCH-BYCHAN HOUSE
Summary: The mansion of Bwlchbychan in the plain domestic style of architecture was built in 1849-51. T. Nicholas. 1872.

Status: listed building **Grade:** II **Community:** Llanwenog

PRN: 18258 **Type:** Blacksmiths Workshop **Period:** Post-Medieval **NGR:** SN48114450
Name: PENFFORDD
Summary:

Status: **Grade:** **Community:** Llanwenog

PRN: 18644 **Type:** Factory **Period:** Post-Medieval **NGR:** SN50074555
Name:
Summary:

Status: **Grade:** **Community:** Llanwenog

PRN: 21024 **Type:** Mansion **Period:** Post-Medieval **NGR:** SN49254450
Name: LLECHWEDD DYRYS;LLECHWEDD
Summary: Documentary reference to the seat of a minor gentry family of the seventeenth and eighteenth centuries. Present-day farmhouse and buildings appear to date from the mid-nineteenth century with no evidence of earlier building. Possible confusion of the name

Status: **Grade:** **Community:** Llanwenog

PRN: 41928 **Type:** Farmstead **Period:** Post-Medieval **NGR:** SN48544720
Name: CRUGYWHIL FARM
Summary: See farm description and individual site descriptions for more details.

Status: **Grade:** **Community:** Llanwenog

PRN: 50153 **Type:** Churchyard **Period:** Early Medieval **NGR:** SN49384552
Name: LLANWENOG PARISH CHURCH;ST GWENOG'S;LLANVEYNOG
Summary: Early medieval B site, ie. medium probability early medieval origins. Churchyard occupied by the medieval Llanwenog parish church which may be the 'Llangweithenauc' that was ravaged by the Saxons in 982). A 'third' of the church had been granted to Whitl

Status: **Grade:** **Community:** Llanwenog

PRN: 57941 **Type:** Stable & Coach-house **Period:** Post-Medieval **NGR:** SN4807943464
Name: STABLE AND COACH-HOUSE RANGE AT BWLCHBYCHAN
Summary: Grade II listed stable& coach-house

Status: listed building **Grade:** II **Community:** Llanwenog

PRN: 57942 **Type:** Milestone **Period:** Post-Medieval **NGR:** SN4831146157
Name: MILESTONE ON A475 E OF CWMSYCHBANT
Summary: Grade II listed milestone

Status: listed building **Grade:** II **Community:** Llanwenog

PRN: 57943 **Type:** Milestone **Period:** Post-Medieval **NGR:** SN4969045850
Name: MILESTONE ON A475 E OF DREFACH
Summary: Grade II listed milestone

Status: listed building **Grade:** II **Community:** Llanwenog

PRN: 57944 **Type:** War Memorial **Period:** Post-Medieval **NGR:** SN5019145869
Name: WAR MEMORIAL
Summary: Grade II listed war memorial

Status: listed building **Grade:** II **Community:** Llanwenog

PRN: 108056 **Type:** Milestone **Period:** Post-Medieval **NGR:** SN46714615
Name:
Summary: A milepost on the section of turnpike road from Newcastle Emlyn to Lampeter. Shown on the Ordnance Survey Old Series, Volume VI, pp. 57. Marked as no. 21.

Status: **Grade:** **Community:** LLANDYSUL

B) National Monument Record (NMR) Sites within 2km radius

NPRN: 405309 **Type:** Defended Enclosure **Period:** Iron Age **NGR:** SN50184459
Name:
Summary: This is the site of a bivallate rectangular defended enclosure, with outward-curving ditches, measuring approximately 76m east/west by 60m north/south. Some possible internal pits are visible. No clearly defined entrance. Discovered as a cropmark during RCAHMS aerial reconnaissance in July 2006.

Status: **Grade:** **Community:** LLANDYSUL

C) Listed Buildings (LBs) within 5km radius from proposed turbine location.

LB No. 10585 **Name:** CHURCH OF ST.DAVID,LLANDYSUL ROAD,CAPEL DEWI **Eastings:** 245190 **Northings:** 242506
Location: Situated at centre of village on crossroads.

Community: Llandysul **Grade:** II

LB No. 10586 **Name:** LYCHGATE TO ST.DAVID'S CHURCH, LLANDYSUL ROAD, CAPEL DEWI **Eastings:** 245178 **Northings:** 242483
Location: Situated on roadside at churchyard entry.

Community: Llandysul **Grade:** II

LB No. 10587 **Name:** ROCK MILLS,LLANDYSUL ROAD,CAPEL DEWI **Eastings:** 245064 **Northings:** 242251
Location: Situated on W bank of Afon Clettwr, approached by drive beginning just above Pontfoel some 250m W of Capel Dewi Church.

Community: Llandysul **Grade:** II

LB No. 10588 **Name:** CHESTNUT MILLS,LLANFIHANGEL **Eastings:** 244893 **Northings:** 242117

ROAD,B4459,CAPEL DEWI

Location: Situated on Afon Clettwr approached by steep track from B4459 some 0.5km S of Capel Dewi.

Community: Llandysul

Grade: II

LB No. 10589 **Name:** THE OLD POST OFFICE,RHYDOWEN
ROAD,B4459,CAPEL DEWI

Eastings: 245289 **Northings:** 242515

Location: Situated some 100m E of crossroads at Capel Dewi, on roadside.

Community: Llandysul

Grade: II

LB No. 10590 **Name:** TELEPHONE CALL-BOX OUTSIDE THE
OLD POST OFFICE,RHYDOWEN
ROAD,B4459,CAPEL DEWI

Eastings: 245283 **Northings:** 242518

Location: Situated on raised terrace, against return wing of Old Post Office.

Community: Llandysul

Grade: II

LB No. 10591 **Name:** BRONEINON MILL,RHYDOWEN
ROAD,CAPEL DEWI

Eastings: 245504 **Northings:** 242746

Location: Situated down grassed track some 150m from B 4459 just N of bridge over Nant Einon.

Community: Llandysul

Grade: II

LB No. 10592 **Name:** CASTELL HYWEL,MYDROILYN
ROAD,CASTELL HYWEL

Eastings: 244379 **Northings:** 248305

Location: Situated down drive of some 300m running off Mydroilyn Road, just N of junction with B4459 Talgarreg Road.

Community: Llandysul

Grade: II

LB No. 10598 **Name:** MILESTONE BETWEEN RHYDOWEN &
CWYMSYCHBANT, CARDIGAN
ROAD,CWMYCHBANT

Eastings: 245158 **Northings:** 245727

Location: Situated on S side of road, some 1km W of Cwmsychbant.

Community: Llandysul

Grade: II

LB No. 10599 **Name:** HENBANT HALL,HENBANT,DERLWYN

Eastings: 244969 **Northings:** 242766

Location: Situated above Afon Clettwr some 400m NE of Derlwyn.

Community: Llandysul

Grade: II

LB No. 10614 **Name:** PONT LLWNI (PARTLY IN LLANLLWNI
COMMUNITY, CARMARTHEN
DISTRICT)LLANLLWNI
ROAD,MAESYCRUGIAU

Eastings: 247218 **Northings:** 241283

Location:

Community: Llandysul

Grade: II

LB No. 10617 **Name:** PONTSIAN STORES,PONTSIAN

Eastings: 243838 **Northings:** 246204

Location:

Community: Llandysul

Grade: II

LB No. 10618 **Name:** DOLYDD,PONTSIAN

Eastings: 243824 **Northings:** 246188

Location:

Community: Llandysul		Grade: II
LB No. 10619	Name: FORMER GRAIN & SEED SHOP OPPOSITE PONTSIAN STORES,PONTSIAN	Eastings: 243862 Northings: 246199
Location:		
Community: Llandysul		Grade: II
LB No. 10620	Name: CLETTWR VILLA,PRENGWYN ROAD,PONTSIAN	Eastings: 243811 Northings: 246174
Location:		
Community: Llandysul		Grade: II
LB No. 10621	Name: OUTBUILDINGS & MILL WHEEL AT PANTMOCH PRENGWYN ROAD,PONTSIAN	Eastings: 243411 Northings: 245845
Location:		
Community: Llandysul		Grade: II
LB No. 10641	Name: LLWYN SMITHY,CAPEL DEWI ROAD,RHYDOWEN	Eastings: 244501 Northings: 244960
Location:		
Community: Llandysul		Grade: II
LB No. 10642	Name: FORMER SMITHY OPPOSITE LLWYN SMITHY, CAPEL DEWI ROAD, RHYDOWEN	Eastings: 244483 Northings: 244959
Location:		
Community: Llandysul		Grade: II
LB No. 10643	Name: ALLTYRODYN,INCLUDING REAR COURTYARD AND BELL TOWER,CAPEL DEWI ROAD,RHYDOWEN	Eastings: 244991 Northings: 244240
Location:		
Community: Llandysul		Grade: II*
LB No. 10644	Name: STABLES & COACH HOUSE AT ALLTYRODYN,CAPEL DEWI ROAD,RHYDOWEN	Eastings: 244961 Northings: 244291
Location:		
Community: Llandysul		Grade: II
LB No. 10645	Name: ALLTYRODYN HOME FARMHOUSE, CAPEL DEWI ROAD, RHYDOWEN	Eastings: 244952 Northings: 244304
Location:		
Community: Llandysul		Grade: II
LB No. 10646	Name: FARM RANGE ON NE.SIDE OF FARMCOURT AT ALLTYRODYN HOME FARM,CAPEL DEWI ROAD,RHYDOWEN	Eastings: 244917 Northings: 244333
Location:		

Community: Llandysul		Grade: II
LB No. 10647	Name: FARM RANGE ON SW.SIDE OF FARMCOURT AT ALLTYRODYN HOME FARM,CAPEL DEWI ROAD,RHYDOWEN	Eastings: 244903 Northings: 244315
Location:		
Community: Llandysul		Grade: II
LB No. 10648	Name: WALLS TO WALLED GARDEN AT ALLTYRODYN,CAPEL DEWI ROAD,RHYDOWEN	Eastings: 244800 Northings: 244439
Location:		
Community: Llandysul		Grade: II
LB No. 10649	Name: GARDEN COTTAGE AT ALLTYRODYN, CAPEL DEWI ROAD, RHYDOWEN	Eastings: 244748 Northings: 244491
Location:		
Community: Llandysul		Grade: II
LB No. 10650	Name: THE BATH HOUSE IN GROUNDS TO NW OF ALLTYRODYN	Eastings: 244831 Northings: 244416
Location: Situated on E side of N drive at Alltyrodyn opposite the walled garden, some 30m N of bridge over farm drive.		
Community: Llandysul		Grade: II
LB No. 10651	Name: BRIDGE ON N.DRIVE TO ALLTYRODYN,CAPEL DEWI ROAD,RHYDOWEN	Eastings: 244839 Northings: 244387
Location:		
Community: Llandysul		Grade: II
LB No. 10652	Name: ENTRANCE GATEPIERS ON N.DRIVE TO ALLTYRODYN, CAPEL DEWI ROAD, RHYDOWEN	Eastings: 244655 Northings: 244769
Location:		
Community: Llandysul		Grade: II
LB No. 10653	Name: SOUTH LODGE,ATTACHED WALLS,GATES & GATEPIERS TO ALLTYRODYN DRIVEWAY,CAPEL DEWI ROAD, RHYDOWEN	Eastings: 245307 Northings: 244131
Location:		
Community: Llandysul		Grade: II
LB No. 10654	Name: SERPENTINE CASCADE FROM LAKE BY SOUTH LODGE, ALLTYRODYN, CAPEL DEWI ROAD, RHYDOWEN	Eastings: 245274 Northings: 244059
Location:		
Community: Llandysul		Grade: II

LB No. 10655	Name: CAPEL LLWYNRHWDOWEN (OLD CHAPEL) CARDIGAN ROAD,RHYDOWEN	Eastings: 244365 Northings: 245211
Location:		
Community: Llandysul		Grade: II*
LB No. 10656	Name: MILESTONE W.OF RHYDOWENFACH, CARDIGAN ROAD, RHYDOWEN	Eastings: 243774 Northings: 244947
Location:		
Community: Llandysul		Grade: II
LB No. 10657	Name: CAPEL LLWYNRHWDOWEN (NEW CHAPEL) PONTSIAN ROAD,RHYDOWEN	Eastings: 244150 Northings: 245853
Location:		
Community: Llandysul		Grade: II
LB No. 10666	Name: CHIMNEY COTTAGE,INCLUDING REAR COURTYARD WALLS WITH BEE BOLES,WAUNIFOR	Eastings: 246002 Northings: 241050
Location:		
Community: Llandysul		Grade: II
LB No. 10667	Name: 3-RANGE FARMCOURT AT WAUNIFOR FARM,WAUNIFOR	Eastings: 246085 Northings: 241100
Location:		
Community: Llandysul		Grade: II
LB No. 10668	Name: FRONGOY FARMHOUSE,LLANWENOG ROAD,WAUNIFOR	Eastings: 246598 Northings: 242046
Location:		
Community: Llandysul		Grade: II
LB No. 10669	Name: BARN AT FRONGOY FARM,LLANWENOG ROAD,WAUNIFOR	Eastings: 246610 Northings: 242043
Location:		
Community: Llandysul		Grade: II
LB No. 18078	Name: Milestone on A475 to W of Llanwnnen	Eastings: 252498 Northings: 246859
Location: Situated on the S side of the A475, approximately 900m W of Llanwnnen cross-roads.		
Community: Llanwnnen		Grade: II
LB No. 18079	Name: Castell-du	Eastings: 253116 Northings: 246861
Location: Situated some 400m SW of Llanwnnen, between the A475 and the B4337, with entrance drives from both these roads.		
Community: Llanwnnen		Grade: II
LB No. 18080	Name: Outbuilding to SW of Castell-du	Eastings: 253097 Northings: 246860
Location: Situated facing SW side of rear wing of house and backing onto lower end of farmyard at Castell-du.		

Community: Llanwnnen

Grade: II

LB No. 18081 **Name:** Coach-house and stables at Castell-du
Location: Situated some 40m to rear of Castell-du, facing SE.

Eastings: 253091 **Northings:** 246880

Community: Llanwnnen

Grade: II

LB No. 18082 **Name:** Barn and Cart-Shed range at Castell-du
Location: Situated across upper NW end of farm-yard at Castell-du, facing SE.

Eastings: 253055 **Northings:** 246869

Community: Llanwnnen

Grade: II

LB No. 18083 **Name:** Outbuilding in W angle of Farmyard at Castell-du

Eastings: 253051 **Northings:** 246855

Location: Situated at upper W corner, to left of barn and cart-shed range, and attached to and at right angles to long S range.

Community: Llanwnnen

Grade: II

LB No. 18084 **Name:** Range of Outbuildings on S side of farmyard at Castell-du

Eastings: 253052 **Northings:** 246848

Location: Situated along S side of farmyard, linked at upper end to end building of NW side, listed separately.

Community: Llanwnnen

Grade: II

LB No. 18366 **Name:** Milepost on B4337 at Alltyblaca

Eastings: 252254 **Northings:** 245589

Location: Situated on the NW side of the B4337, in the centre of Alltyblaca approximately 330m S of the chapel.

Community: Llanwenog

Grade: II

LB No. 18367 **Name:** Bwlchbychan

Eastings: 248082 **Northings:** 243392

Location: Situated some 700m SW of Brynteg chapel, in its own grounds facing SE over the Teifi valley.

Community: Llanwenog

Grade: II

LB No. 18368 **Name:** Stable and Coach-house Range at Bwlchbychan

Eastings: 248079 **Northings:** 243464

Location: Situated some 100m N of Bwlchbychan, backing onto lane from Llanwenog to Waunifor.

Community: Llanwenog

Grade: II

LB No. 18369 **Name:** Milestone on A475 E of Cwmsychbant

Eastings: 248311 **Northings:** 246157

Location: Situated on the S side of the A475, approximately 650m E of Cwmsychbant village centre.

Community: Llanwenog

Grade: II

LB No. 18370 **Name:** Milestone on A475 E of Drefach

Eastings: 249690 **Northings:** 245850

Location: Situated on the S side of the A475, approximately 900m E of Drefach village centre.

Community: Llanwenog

Grade: II

LB No. 18371 **Name:** War Memorial

Eastings: 250191 **Northings:** 245869

Location: Situated in Drefach village, on S side of A 475.

- Community:** Llanwenog **Grade:** II
- LB No.** 18372 **Name:** Pontbrendu **Eastings:** 251410 **Northings:** 244006
Location: Situated some 600m W of Llanybydder bridge, on S side of road to Rhuddlan, about 50m from junction with B4338.
- Community:** Llanwenog **Grade:** II
- LB No.** 18373 **Name:** Pont Llanybydder (Partly in Llanybydder Community) **Eastings:** 251970 **Northings:** 244136
Location: Situated just W of Llanybydder, carrying B4337 across River Teifi.
- Community:** Llanwenog **Grade:** II
- LB No.** 18374 **Name:** Rhiwson Uchaf house-and-byre **Eastings:** 250473 **Northings:** 246815
Location: Situated some 600m NNE of Drefach, reached by minor lane running NNE of B4338, and down drive from right angle bend at Rhiwson Isaf.
- Community:** Llanwenog **Grade:** II*
- LB No.** 23883 **Name:** Pont Llanybydder (Partly in Llanwenog Community) **Eastings:** 251974 **Northings:** 244121
Location: Situated just W of Llanybydder, carrying B4337 across River Teifi.
- Community:** Llanybydder **Grade:** II
- LB No.** 80702 **Name:** Dolgwm Stores **Eastings:** 251954 **Northings:** 244007
Location: Facing the Black Lion Inn 100m NE of the parish church.
- Community:** Llanybydder **Grade:** II
- LB No.** 80704 **Name:** Mile marker at Pont yr Henfaes **Eastings:** 250878 **Northings:** 242332
Location: Approximately 2.2km SW of Llanybydder, built within the N parapet of the bridge.
- Community:** Llanybydder **Grade:** II
- LB No.** 80707 **Name:** The Vicarage **Eastings:** 252510 **Northings:** 244325
Location: Approximately 0.75km NE of the parish church, in its own grounds on the edge of the town.
- Community:** Llanybydder **Grade:** II
- LB No.** 81232 **Name:** Pen-rhiw **Eastings:** 253324 **Northings:** 244958
Location: Approximately 200m SW of the church.
- Community:** Pencarreg **Grade:** II
- LB No.** 81233 **Name:** Troed-rhiw **Eastings:** 253304 **Northings:** 244882
Location: Set down below the level of the road, approximately 250m SW of the parish church.
- Community:** Pencarreg **Grade:** II
- LB No.** 81239 **Name:** Lloyd family mausoleum in Llanllwni churchyard **Eastings:** 247362 **Northings:** 241308
Location: Immediately E of the church.
- Community:** Llanllwni **Grade:** II

LB No. 81240 Name: Maesycrugiau Manor **Eastings:** 247756 **Northings:** 240492
Location: In its own grounds approximately 0.9km SE of the parish church.

Community: Llanllwni **Grade:** II

LB No. 81241 Name: Maesycrugiau mausoleum in Llanllwni churchyard **Eastings:** 247377 **Northings:** 241301

Location: To the E of the church and Lloyd family mausoleum.

Community: Llanllwni **Grade:** II

LB No. 9378 Name: Church of St Luke or St Llonio **Eastings:** 247344 **Northings:** 241299
Location: In an isolated position away from Llanllwni village and on an elevated site directly above Afon Teifi.

Community: Llanllwni **Grade:** II*

LB No. 9379 Name: Pont Llwni **Eastings:** 247221 **Northings:** 241280
(partly in Llandysul Community)

Location: Spanning the Afon Teifi approximately 150m W of the parish church.

Community: Llanllwni **Grade:** II

LB No. 9381 Name: Church of St Peter **Eastings:** 251883 **Northings:** 243937
Location: In a walled churchyard on the W side of the town and on the W side of the cattle market.

Community: Llanybydder **Grade:** II

LB No. 9382 Name: Cross Hands Hotel **Eastings:** 252224 **Northings:** 244017
Location: On the SE side of the main crossroads near the centre of the town.

Community: Llanybydder **Grade:** II

LB No. 9817 Name: St Gwenog Church **Eastings:** 249389 **Northings:** 245526
Location: Situated on E side of minor lane connecting B4338 and A475 some 750m WSW of Drefach.

Community: Llanwenog **Grade:** I

D) Scheduled Ancient Monuments (SAMs) within 5km radius

SAM Ref: CM101 **Site Type:** Hillfort **Period:** Prehistoric **NGR:** SN523434
SAM Name: Pen y Gaer
Community: Llanybydder

SAM Ref: CD084 **Site Type:** Motte **Period:** Medieval **NGR:** SN440476
SAM Name: Castell Hywel
Community: Llandysul

SAM Ref: CD076 **Site Type:** Motte **Period:** Medieval **NGR:** SN443447
SAM Name: Tomen Rhyd-Owen
Community: Llandysul

APPENDIX IV:
Archive Cover Sheet

ARCHIVE COVER SHEET
Caeronnen Wind Turbine
Cwmsychbant, Llanybydder, Ceredigion

ARCHIVE DESTINATION – HRS Wales

Site Name:	Caeronnen Wind Turbine
Site Code:	CWT/2015/AA
PRN:	
NPRN :	N/A
SAM:	N/A
Other Ref No:	HRSW Report No. 168
NGR:	SN 4840 4530
Site Type:	Varied landscape
Project Type:	Archaeological Appraisal
Project Manager:	Richard Scott Jones
Project Dates:	October 2015
Categories Present:	N/A
Location of Original Archive:	HRS Wales
Location of duplicate Archives:	Dyfed Archaeological Trust
Number of Finds Boxes:	
Location of Finds:	
Museum Reference:	
Copyright:	HRS Wales
Restrictions to access:	None



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