PROPOSED WIND TURBINES AT BLAENLLIEDI FARM, PONTYBEREM, CARMARTHENSHIRE: HISTORIC ENVIRONMENT APPRAISAL (NGR SN 5125 0786)



Prepared by Dyfed Archaeological Trust Field Services

For: Hallmark Power Ltd





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Gan / By

Simon Ratty

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PROPOSED WIND TURBINES AT BLAENLLIEDI FARM, PONTYBEREM, CARMARTHENSHIRE: HISTORIC ENVIRONMENT APPRAISAL

SUMMARY

Dyfed Archaeological Trust Field Services was commissioned by James Mountain of Hallmark Power, to prepare a Historic Environment Appraisal to provide more information about the potential effects of two proposed wind turbines at Blaenlliedi Farm upon the historic environment. This report will be used by planners to make an informed decision on the proposals in regards to archaeology and the historic environment.

The proposed site for the wind turbines is located on agricultural land to the south of Pontyberem, Carmarthenshire. The two potential turbines lie at NGR SN 51148 07971 and NGR SN 51110 07858. The site lies c.350m to the southeast of Blaenliedi Farm.

No Scheduled Ancient Monuments within 1.5km of the proposed wind turbine locations. One listed buildings lies within 1.5km of the proposed wind turbines. No Historic Park and Garden lies within 1.5km of the proposed wind turbine locations. Fifteen known archaeological sites are recorded on the Regional Historic Environment Record and three on the Royal Commission on the Ancient and Historic Monuments of Wales National Monuments Record lying within 1.5km of the proposed wind turbines. The site does not lie within any Historic Landscape Categorisation areas or any Conservation Areas.

It is concluded that the development proposal will have no physical impact on any known archaeological sites. However, it is possible that two large stones noted in the field boundaries to the east of the proposed wind turbine site may represent prehistoric monuments removed from the field. It is also highly likely that coal mining has been undertaken below the proposed wind turbine sites, although this would lie at a considerable depth and would not be directly affected by the development. It is also possible that unrecorded potentially early surface workings may be present within close proximity. It is considered that the visual impact of the proposed wind turbines on the wider historic environment and on individual historical assets will be slight.

1. INTRODUCTION

1.1 Project Proposals and Commission

- 1.1.1 Dyfed Archaeological Trust Field Services was commissioned by James Mountain of Hallmark Power Ltd, to provide a Historic Environment Appraisal to provide more information about the potential effects of two proposed wind turbines on land at Blaenlliedi Farm upon the historic environment. The resulting report would enable the planners to make an informed decision on the proposal as regards archaeological and historic environment issues.
- 1.1.2 The proposed wind turbines are located within a field within agricultural land lying c.350m to the southeast of Blaenlliedi Farm, to the south of Pontyberem, Carmarthenshire. The northern potential wind turbine will be located at NGR SN 51148 07971 and the southern one at NGR SN 51110 07858. The turbines lie 120m apart. The proposed turbines will be WTN250 turbines which are 30m to hub and 45m to the tip of the blades.
- 1.1.3 It is envisaged that the construction of the proposed wind turbine will include the excavation of the turbine base and associated cable trenches which could impact upon buried archaeological remains. The crane pad and access roads will be temporary during construction, using aluminium trackways. These will be laid directly on the existing ground surface and there will be no disturbance to any underlying remains.
- 1.1.4 The Appraisal has been produced in accordance with a generic brief supplied by the Planning Services section of Dyfed Archaeological Trust.

1.2 Scope of the project

- 1.2.1 The appraisal is presented in fulfilment of a Written Scheme of Investigation (Appendix 1) working to a brief provided by the archaeological advisors to the planning authority (the Planning Services section of Dyfed Archaeological Trust). This appraisal is not a full desk-based assessment of the potential historic environment resource. Rather, it is a more rapid piece of work involving readily available information to assess historic environment potential.
- 1.2.2 The results are intended to identify the extent and character of the known and potential archaeological resource, to assess the likely and potential impacts of the scheme on that resource and, if required, to outline a possible programme of further works to mitigate those impacts. The appraisal should be seen only as the first stage of the archaeological process and does not preclude the possibility that further archaeological input may be required prior to, or during, the proposed development.
- 1.2.3 The proposed wind turbines lie within the planning jurisdiction of Carmarthenshire County Council.
- 1.2.4 The historic environment appraisal was limited to the resources held in the regional HER and other on-line resources.
- 1.2.5 Considering the potential size and nature of the proposed wind turbines a 2km radius from the approximate mid-point between the two turbines was considered a sufficient area with which to evaluate visual effects on designated archaeological sites and elements of the historic environment. A 1.5km radius search area was used to establish buried archaeological

potential using information held on the regional Historic Environment Record and the RCAHMW National Monuments Record. The mid-point lies at NGR SN 51129 07914.

1.3 Abbreviations used in this report

1.3.1 All sites recorded on the regional Historic Environment Record (HER) are identified by their Primary Record Number (PRN) and located by their National Grid Reference (NGR). Sites recorded on the National Monument Record (NMR) held by the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) are identified by their National Primary Record Number (NPRN). Scheduled Ancient Monument (SAM). Altitude is expressed to Ordnance Datum (OD). References to cartographic and documentary evidence and published sources will be given in brackets throughout the text, with full details listed in the sources section at the rear of the report.

1.4 Illustrations

1.4.1 Photographic images are to be found at back of the report. Printed map extracts are not necessarily reproduced to their original scale.

1.5 Timeline

1.5.1 The following timeline (Table 1) is used within this report to give date ranges for the various archaeological periods that may be mentioned within the text.

Period	Approximate date	
Palaeolithic –	c.450,000 - 10,000 BC	_
Mesolithic –	c. 10,000 – 4400 BC	Pre
Neolithic -	c.4400 - 2300 BC	hist
Bronze Age –	c.2300 - 700 BC	Prehistoric
Iron Age –	c.700 BC - AD 43	Ω
Roman (Romano-British) Period –	AD 43 – c. AD 410	
Post-Roman / Early Medieval Period –	c. AD 410 - AD 1086	_
Medieval Period –	1086 - 1536	Hist
Post-Medieval Period ¹ –	1536 - 1750	Historic
Industrial Period –	1750 - 1899	n
Modern –	20th century onwards	

Table 1: Archaeological and Historical Timeline for Wales

¹ The post-medieval and industrial periods are combined as the post-medieval period on the Regional Historic Environment Record as held by Dyfed Archaeological Trust

2. SITE LOCATION AND TOPOGRAPHY

2.1 The location of the proposed wind turbines lies on a hillside site c.350m to the southeast of Blaenlliedi, the two proposed turbines will be located at NGR SN 51148 07971 and the southern one at NGR SN 51110 07858. The proposed site, currently under pasture, comprises a relatively substantial field bounded by earthen banks topped with post and wire fencing. The proposed location lies on a west sloping site below the crest of the hill.

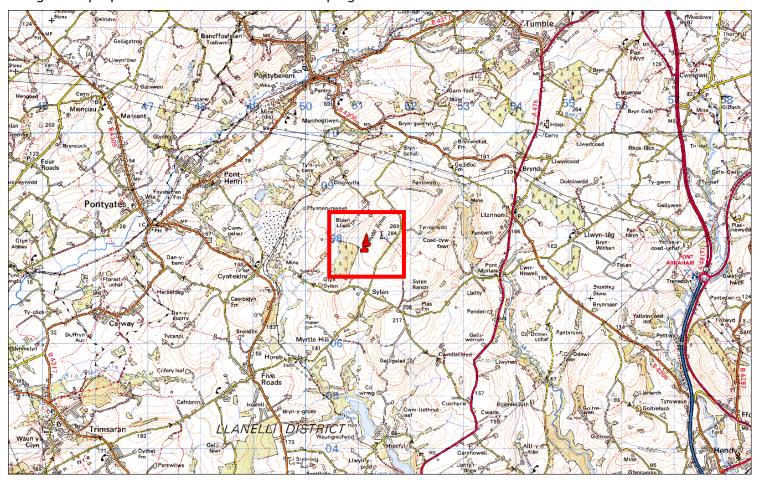


Figure 1: Location map based on the Ordnance Survey.

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3 METHODOLOGY

3.1 This Historic Environment Appraisal followed the required methodology laid out in the written scheme of investigation which was prepared in response to a generic brief prepared by DAT Planning Services (Appendix 1).

Desk top study

- 3.2 Computer based and other resources within the Regional HER were consulted in the preparation of this document. Sufficient information was consulted to inform comment on the goals of the assessment. GIS layers were used to assess and illustrate what the likely effects of the proposals upon the historic environment might be.
- 3.3 Designated historic environment assets (Scheduled Ancient Monuments, Listed Buildings, Historic Landscape Characterisation Areas, Historic Parks and Gardens) were identified within a 2km radius centred on the mid-point between the two potential wind turbine locations. The potential visual effect of the proposed wind turbine on the settings of the designated sites within this area was then evaluated.
- 3.4 Non-designated archaeological and historic sites were identified within a 1.5km radius centred on the proposed wind turbine site. This area was considered sufficient to enable an assessment of the archaeological potential of the site area to be made.

Site Walkover Survey

3.5 A site visit was undertaken on the 18th September 2013. The visit comprised a walkover of the proposed wind turbine sites and the surrounding area and also incorporated looking at the wider area for views looking back to the site. Photographs were taken and field observations recorded in note form.

4. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

4.1 The Historic Landscape

- 4.1.1 The proposed sites for the wind turbines do not lie within the boundaries of any Historic Landscape Categorisation areas recorded on the Register of Landscapes of Outstanding Historic Interest in Wales (Cadw 1998). No Historic Landscape Categorisation Areas lie within a 2km radius of the site,
- 4.1.2 The proposed wind turbine sites do lie within the Countryside Council for Wales Mynydd Sylen Historic Landscape Aspect Area (CRMRTHL39527) which is summarised as follows:

'Mynydd Sylen, An area characterised mainly by a regular layout of medium sized field enclosures, used mainly as pasture with some woodland plantation... The settlement pattern is one of dispersed farmsteads and cottages... Most significant archaeological element(s): Bronze Age ritual monuments²

4.1.3 The proposed wind turbine sites also lie within the Countryside Council for Wales Gwendraeth Valley and Limestone Belt Cultural Aspect Area (CRMRTCL027) which is summarised as follows

'This former industrial area, renowned for the quality of its anthracite and limestone quarrying, and of its rugby players, is now suffering from the collapse of primary industry. The area is large and contains such settlements embedded in the psyche of Welsh rugby supporters as Trimsaran, Cefneithin, Pontvates, Pontvberem and Tumble, Famous rugby players who originated from the villages include Carwyn James and Barry John (Cefneithin), the late Ray Gravell (Mynydd y Garreg) and Jonathan Davies (Trimsaran). Phil Bennett hails from Felinfoel, just outside the Aspect Area. This south-eastern part of Carmarthenshire has been dubbed by singer-comedian Max Boyce as the Fly Half Factory of Wales. Other notable people from the area include John Jones. maker of the Ponyberem Miners Lamp, and the two singers, Dorothy Squires and Gwenda Owen. This part of the South Wales coalfield has little of the resonance of the Rhondda, nor are its communities forced into narrow valleybottom ribbons of inter-linked settlements, but they possess similar cultural remnants as chapels and working mens clubs. Like in much of rural Carmarthenshire, the incidence of Welsh speaking is high. The products of industry from the Valley were transported first by canal and then by railway to Burry Port. An early tramway bridge over the Gwendraeth Fawr, the oldest railway bridge in Wales, dates from around 1770. As part of the Unitary Development Plan, Local Regeneration Sites have been identified at: Kidwelly (Coedbach Washery), Pontyberem (Pentremawr Colliery, Coalbrook Tip, land adjacent to Ffordd Aneurin), Carway (Ffos Las horse racecourse), Cynheidre (Cynheidre Colliery). A Gwendraeth Valley Link Road to improve access to the A48/M4 corridor is planned, with the intention of taking the heavy commercial vehicles away from residential areas and opening up areas for future inward investment, and therefore employment. 3

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²http://test.landmap.ccw.gov.uk/PrintExtendedResults.aspx?filter=HL|CRMRTHL39527&MapCollectionName=LandMap&Layer01=HL;CRMRTHL39527

³http://test.landmap.ccw.gov.uk/PrintExtendedResults.aspx?filter=CL|CRMRTCL027&MapCollectionName=LandMap&Layer01=CL;CRMRTCL027

- 4.1.4 No Conservation Areas lie within a 2km radius of the proposed wind turbine sites.
- 4.1.5 No Registered Parks and Gardens lie within a 2km radius of the proposed wind turbine sites.

4.2 Scheduled Ancient Monuments

4.2.1 No Scheduled Ancient Monuments lie within a 2km radius of the proposed wind turbine sites.

4.3 Listed Buildings

4.3.1 There is one listed building within a 2km radius of the proposed wind turbine sites, this lies *c*.1.4km to the northwest (Figure 2). The building is Grade II listed.

PRN	Grade	Site Name	Period	NGR
61127	II	Disgwylfa Farmhouse	Post medieval	SN 50521 09119

Table 3: Listed buildings within a 2km radius of proposed wind turbine site.

4.4 Known Archaeological Remains

4.4.1 The following tables lists the features that are recorded in the Regional HER and on the National Monuments Record (NMR). The Regional HER records 15 sites of archaeological interest whilst the NMR records three. The distribution of the sites recorded on the Regional HER is shown in Figure 2. None of the sites are located within the area of the proposed wind turbines or their immediate vicinity.

PRN	NPRN	Site Name	Summary	Period	NGR
6751	17224	Coed-Cyw	Apparently a RCAHMW record of 5 settlements bearing the Coed Cyw	Post-medieval,	SN 52 07
			name; -isaf, -uchaf, -ganol, -fawr, -fach.	Medieval	
10973		Glimas	Settlement	Medieval	SN 5032 0709
11499	111363	Mynydd Sylen	Site was cleared of loose surface rocks in the 1950s. Most significant feature is a kerb of packed stones describing half a circle, of a diameter of about 3 metres. Nothing was seen at the given NGR. The undulating E-facing slope is given over to pasture but has apparently been dug into in one or two places. No ring features were noted except for a circular hollow (like a shake hole but shallower) near	Bronze Age	SN 5167 0820
			the crest of the hill, above the NGR. There is a new fence line near to the NGR and on the NE side of it improvements have been carried out. It is possible therefore that a ring feature has been eradicated in the last 11 years; the present occupier has been on this land for only two years and could provide no information.		
12705		St Dyddgen's Chapel; Hengoed; Capel Sylen?	A chapelry to Llanelli parish is marked Saxton's map of 1578 (as 'Capel duthgye'). William Rees' 1932 map locates it at Hengoed. It is not mentioned by Lewis, in 1833, by which time - if it had ever existed - it had presumably gone. It was apparently dedicated to St Dyddgen but there is no current evidence for an early medieval date.	Medieval	SN 517 067
			Ruins of a chapel? at the edge of the field on the Pond to Sylen farm. The owner of Pantycelyn remembers a service being held in the 1930's in the ruins of this chapel, and also in the ruins of another chapel (PRN 16797) the bungalow called 'Capel Sylen'. "Llanllyddgen is probably a variant for Capel Dyddgen,is a foundation of 'saynt Dethgen' a welsh saint". "Capel Dyddyn in the Parish of Llanelli in the hamlet of Llangoed near Sylen Farm." Arch Camb 1915		
16287		Ffynnonymenyn	Well	Post-medieval	SN 4998 0853
16797		Capel Sylen	The exact location of this former chapel was not clear on the ground. No stones could be located at the given coordinates. Situated near the farm with the name of 'Capel Sylen'. Only stones	Post-medieval	SN 5145 0670

			remain on this site. The farmer from Pantyceln nr Capel Sylen farmhouse remembers a service held here in the ruins around to 18303		
24119		Ystodwen-Uchaf	Sites seen from road - suspected barrows. In conversation with owner of Ystodwen-uchaf farm it appears that these are Second World War gun emplacements. It does not appear that these features are in great danger as the owner is genuinely interested in the conversation of antiques. He also confirmed the existence of a semi-circular kerb near the summit of the mountain observed by myself in the previous February. There are a number of kerbed arcs associated with the main feature (PRN 11499).	Post-medieval	SN 517 086
24259		Bryn-Du	Quarry	Post-medieval	SN 51224 08439
24260		Ty-Isaf	Cottage shown on early 20th century maps.	Post-medieval	SN 50508 07628
24261		Plas-Llwyd	Cottage shown on early 20th century maps.	Post-medieval	SN 5055 0700
24262		Pen-Y-Llan	Cottage shown on early 20th century maps.	Post-medieval	SN 5073 0699
24263	123912	Sylen	Blacksmiths workshop	Post-medieval	SN 5115 0693
24267		Cae-Glascolliery	Coal mine	Post-medieval	SN 5130 0910
24416		Mynydd Sylen	Parliamentary field system	Post-medieval	SN 519 077
46550		Mynydd Sylen	The site of a rally of over 3,000 Rebeccaites in August 1843, led by Carmarthenshire solicitor Hugh Williams, who read out a petition to the Queen calling outlining the people's grievances.	Post-medieval	SN 52 08
61127		Disgwylfa Farmhouse	Grade II listed farmhouse	Post-medieval	SN 50521 09119

Table 3: HER sites within 1.5km of the proposed wind turbine

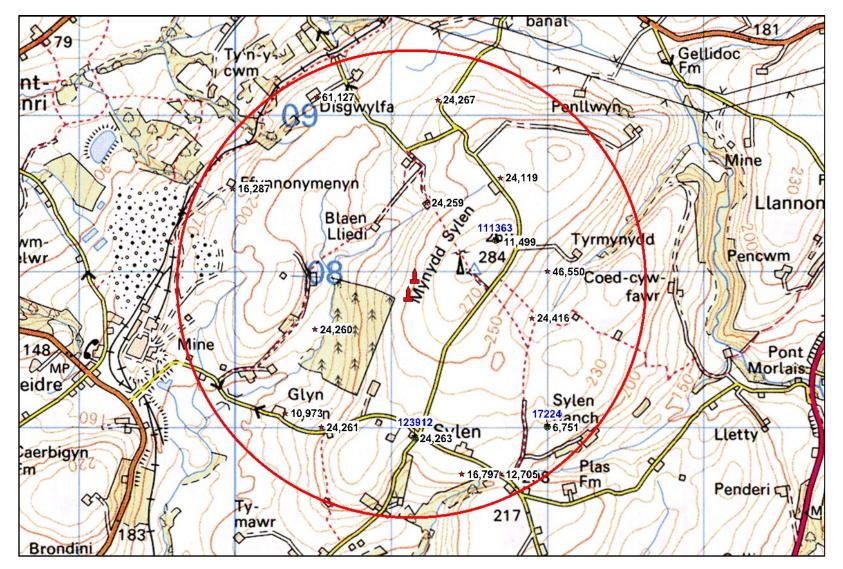


Figure 2: Map showing HER and NMR sites within 1.5km of the proposed wind turbine site labelled with their PRN and NPRN (blue) numbers.

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4.5 Historic Mapping and Documentary Search

- 4.5.1 The 1813 Original Ordnance Surveyors drawings indicate the proposed location for the wind turbines was undeveloped land at that time (Figure 3) although the layout of surroundings roads an farms was already established. The agricultural nature of the land continues on both the 1st and 2nd edition Ordnance Survey maps, where the area is shown as rough pasture (of 1889 and 1907 respectively; Figures 4 and 5). The only change visible on these map editions is the presence of an enclosed field on the 2nd edition that is not shown on the 1st edition. It is likely that the site area has probably been used as agricultural land since the medieval period.
- 4.5.2 Historic mapping also indicates that coal mining has been undertaken within the wider search area as a number of features relating to this activity are shown on late 19th through to modern maps. The Gwendreath Valley area is known to have reserves of some of the highest quality anthracite with a carbon content in excess of 90% (Cullen 2001, 7) and mining activity is likely to be present beneath the site for the proposed wind turbines. The nearby former Cynheidre Colliery (1.9km to west) had workings which covered 367 square km served by potentially 64km of roadways (Owen 2006, 109) and which are likely to extend into the site of the proposed wind turbines. Much of these workings lie at considerable depth, in the case of Cynheidre the shafts were sank to a depth of 695m with coal being worked initially at depths of 512m and 603m (Rees 2008, 115). Mining at these depths would not be disturbed by the proposed wind turbines. However, there is some indication that shallow workings may also be present in the area. Gwendreath Valley the Lower Coal seams come to the surface and were extensively worked from at least the earlier part of the 19th century. Many of these operations were small scale and worked for a short period before they were abandoned and subsequently became flooded (Ministry of Fuel and Power 1946, 181). It is unclear whether any such operation was undertaken at the site for the proposed wind turbines or within close proximity to them. The lack of visible features shown on the earlier Ordnance Survey maps suggesting surface mine workings would indicate that it is unlikely the coal seams lay close to the surface in this area.
- 4.5.3 Additional documentary research has also indicated that the site of the 1843 Rebeccaite rally (PRN 46550) was held on the summit of Mynydd Sylen, lasted four hours and was attended by upwards of 3000 (Tobit Evans 1910, 156). The summit of Mynydd Sylen lies *c.*400m to the northeast of the proposed site of the wind turbines. It is unlikely that any significant traces of this meeting would be found apart from potential losses of items such as coins made by the attendees.

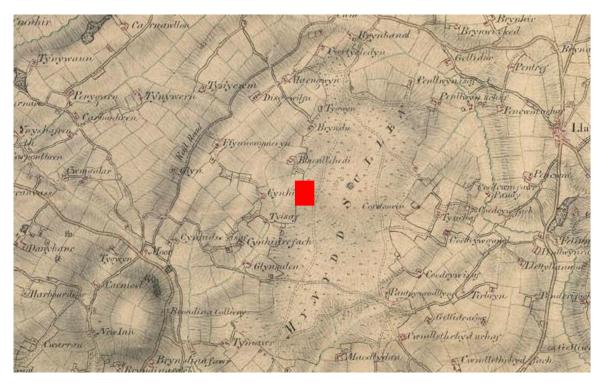


Figure 3: Extract of 1813 Original OS Surveyors drawings showing approximate location of proposed wind turbines

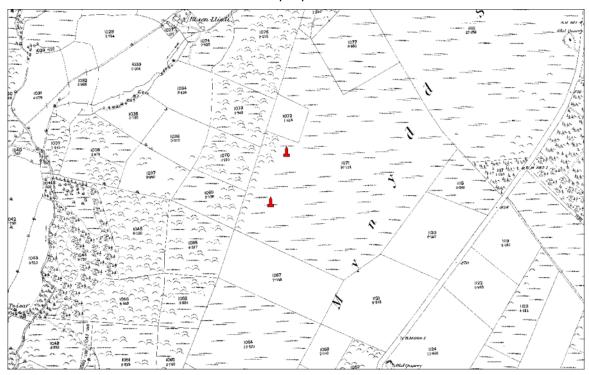


Figure 4: Extract of 1880 1:2500 OS map showing location of proposed wind turbines

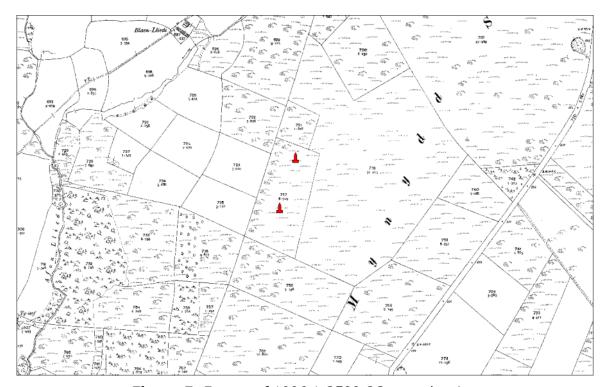


Figure 5: Extract of 1906 1:2500 OS map showing location of proposed wind turbines

4.6 Site Walkover Survey

- 4.6.1 The field within which the proposed wind turbines are to be located was under pasture at the time of the site visit.
- 4.6.2 The landscape is one of fields and dispersed farms and other dwellings/buildings. It is a relatively open landscape, with this and surrounding fields mostly bounded by earthen banks topped with post and wire fencing. Extensive views are afforded in all directions bar to the northeast where the ground rises. To the southwest it was possible to view as far as Tenby and Caldey Island whilst to the southeast the town of Llanelli and part of the Gower Peninsula were visible. Further to the southeast it was possible to view the DVLA building Morriston, Swansea and steam emitting from the chimneys of Port Talbot Steel Works. To the northwest it was possible to view the village of Pontyberem whilst to the west it was possible to view parts of Pontyates and Meinciau with the Preseli Mountains in the far distance (Photos 1-5; Figure 6).
- 4.6.3 No new archaeological sites were identified within the proposed location for the wind turbines during the course of the site visit. However, two large stones were noted lying in field boundaries to the east (Stone 1 NGR SN 5149 0792; Stone 2 NGR SN 5159 0781) (Photos 6 and 7; Figure 7). These are believed to have been removed from the field according to the landowner. The line of the LNG pipeline passes to the south of the proposed wind turbine site but it is thought that no archaeological remains were identified at this location during an archaeological watching brief maintained during topsoil stripping works (Photos 8 and 9; Figure 7)
- 4.6.4 It is possible to view the top of Mynydd Sylen, which is identifiable by its pair of television masts, from as far afield as Gorlas and Cross Hands (c. 8km to the northeast) but is not visible from the villages of Pontyberem, Pont Henri, Pontyates or Five Roads. Whilst in relatively close proximity it is not possible to view either Mynydd Sylen or the proposed wind turbine sites from Cynheidre. These only become visible from the former railway bridge near the old colliery site (NGR SN 49410 07190). As far as can be ascertained and given that the turbine is to be sited on the southwestern side below the crest of Mynydd Sylen it is unlikely that they would have a significant visual effect on the Listed Building, to the northwest or other archaeological resources within the search area.

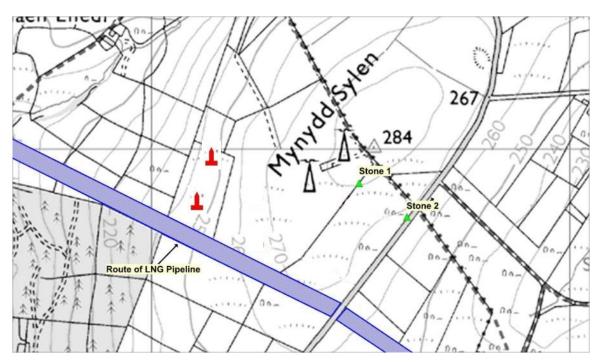


Figure 6: Walkover survey plan

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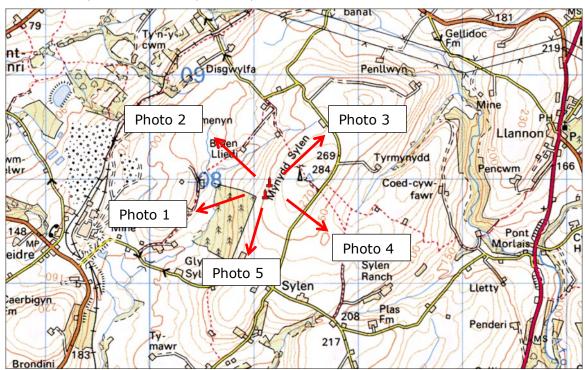


Figure 7: Plan of view-shed photo locations

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Photo 1: View southwest Tenby and Caldey Island from proposed wind turbine sites.



Photo 2: View toward northwest from proposed wind turbine sites. Meinciau visible on right and Preseli mountains to right.



Photo 3: Views northeast from proposed wind turbine sites.



Photo 4: View southeast from proposed wind turbine sites. Gower Peninsula visible in centre.



Photo 5: View south-southeast from proposed wind turbine sites.



Photo 6: Stone 1 in field boundary at NGR SN 5149 0792.



Photo 7: Stone 2 in field boundary at NGR SN 5159 0781



Photo 8: LNG pipeline 'break through' at NGR SN 5144 0759



Photo 9: LNG pipeline 'break through' at NGR SN 5128 0768

5. IMPACTS OF THE PROPOSED EXTENSION ON THE HISTORIC ENVIRONMENT

5.1 Physical impacts

5.1.1 There will be no physical impacts on any known archaeology within the development site.

5.2 Buried archaeological potential

- 5.2.1 Due to the paucity of known archaeological sites in the immediate vicinity the potential for hitherto unknown archaeological sites to be present within the proposed development area is considered to be low. A watching brief maintained during topsoil stripping as part of a major LNG pipeline, the route of which passes close to the site of the proposed wind turbines, appears not to have identified any archaeological remains within this location.
- 5.2.2 The discovery of two substantial stones located within a field boundary to the east of the proposed wind turbine sites, which are thought by the landowner to have been removed from the field, may indicate hitherto unknown prehistoric activity within the area which may extend into the proposed site for the wind turbines. In addition to this it is also highly likely that abandoned coal workings also lie beneath the proposed wind turbine sites but these are considered to lie at such a depth that they would not be affected by the proposals. However, it is possible that early coal workings may be present within the area as coal seams in the area are known to have come to the surface in places and were exploited from at least the early part of the 19th century.

5.3 Palaeoenvironmental potential

5.3.1 The hilltop location of the proposed wind turbines is unlikely to have any potential to reveal substantial deposits suitable for palaeo-environmental analysis.

5.4 Visual impacts

- 5.4.1 No Scheduled Ancient Monuments lie with 2km of the proposed wind turbine sites. Any visual impacts on SAMs outside of this area would be considered to be negligible. It is unlikely that they will have an effect on the setting of the single Listed Building within the area, Disgwylfa Farmhouse (PRN 61127).
- 5.4.2 The closest known archaeological site, which is not designated, is a Bronze Age ring barrow (PRN 11499) which lies *c.*560m to the northeast of the proposed wind turbines. Bryn Du post medieval quarry lies *c.*560m to the north of the proposed wind turbine site but given the quarry lies within a small area of woodland it is unlikely the turbines would have a visual impact on its setting. The site of a political meeting held in 1843 (PRN 46550) also lies within the vicinity of the proposed wind turbines although its precise location is unknown, although there is some suggestion it was held on the summit of Mynydd Sylen which lies *c.*400m to the northeast of the proposed wind turbine site.

- 5.4.3 The settlements of Pontyberem, Pontyates, Meinciau and Llanelli are visible at ground level from the proposed wind turbine sites. Although the wind turbines would be relatively tall (45m to the tip of the blades), given that they are proposed to lie below the crest of the hill on its western side, it is considered that it would have a minimal visual impact on these settlements. Further afield parts of Morriston, Swansea, the Gower Penninsula, Tenby and Caldey Island are visible but given their distance from the proposed site of the wind turbines the visual impacts of the turbines would be considered negligible.
- 5.4.4 The scale of any potential visual impacts of the two proposed turbines would already be lessened due to the existing presence of the two *c.*50m tall television masts which lie close to the summit of Mynydd Sylen (see cover photo). The turbines will lie below the crest of the hill and thus be far less visible than these masts.

5.5 Other Constraints

- 5.5.1 The site does not lie in an area of ancient woodland or within farmland within the Glastir scheme.
- 5.5.2 There were no other wind turbines visible in close proximity to the proposed turbine site. It is unknown if any other turbines are proposed for this area in separate planning applications.

5.6 Summary of Impacts

- 5.6.1 It is considered that the proposed wind turbine will overall have a slight impact on the wider historic environment in terms of visual issues and it is unlikely that these would cause any constraint to the proposals.
- 5.6.2 There is considered to be a low potential that the turbine and associated works would impact upon buried archaeological remains, and thus it is unlikely that any further archaeological investigations would be needed.
- 5.6.3 The decision for any further programme of archaeological works lies with the Archaeological Advisor to the Local Planning Authority.

6. SOURCES

Published

Cadw 1998. Register of Landscapes of Outstanding Historic Interest in Wales.

Cornwell J 2001 Collieries of South Wales: 1. Ashbourne. Landmark.

Cullen P 2001 Outburst: Curse Below the Gwendreath Valley. Carmarthenshire County Council.

Ministry of Fuel and Power 1946 South Wales Coalfield (Including Pembrokeshire) Regional Survey Report. London. HMSO

Owen D 2006 South Wales Collieries Vol III. Stroud. Tempus.

Rees R 2008 The Black Mystery: Coal Mining in South West Wales. Talybont. Y Lolfa

Tobit Evans H 1910 Rebecca and Her Daughters: Being A History of the Agarian Disturbances in Wales Known as 'The Rebecca Riots' Cardiff. Educational Publishing Co Ltd.

Database

Dyfed Archaeological Trust Historic Environment Record, housed with Dyfed Archaeological Trust in The Shire Hall, Llandeilo, Carmarthenshire, SA19 6AF

COFLEIN, online database for the National Monuments Record of Wales (NMRW), provided by The Royal Commission on the Ancient and Historical Monuments of Wales

Cartographic

Ordnance Survey Original Surveyor's Drawings 1813 Llannon

Ordnance Survey 1880 1:2500 1^{st} edition Carmarthenshire Ordnance Survey 1906 1:2500 2^{nd} edition Carmarthenshire

Aerial Photographs

Next Perspectives – digital aerial photographs held by the Dyfed Historic Environment Record.

Get Mapping - digital aerial photographs held by the Dyfed Historic Environment Record.

APPENDIX 1:

PROPOSED WIND TURBINES AT BLAENLLIEDI FARM, NEAR PONTYATES, CARMARTHENSHIRE:

HISTORIC ENVIRONMENT APPRAISAL: WRITTEN SCHEME OF INVESTIGATION

1 Introduction

- 1.1 This written scheme of investigation presents a proposed methodology for a historic environment appraisal for two proposed wind turbines at Blaenlliedi Farm, near Pontyates, Carmarthenshire. The appraisal has been requested by James Mountain of Hallmark Power Ltd prior to the planning application for the wind turbines being submitted to Carmarthenshire County Council. The northern potential wind turbine will be located at NGR SN 51148 07971 and the southern one at NGR SN 51110 07858. The turbines lie approximately 119m apart.
- 1.2 A generic brief for the required historic environment appraisal has been prepared by the archaeological advisors to the local planning authority, Planning Services of Dyfed Archaeological Trust. This document outlines the proposed methodology that will be used to undertake the appraisal and provide the information required in support of the planning application for the development.
- 1.3 The appraisal will be a primarily desk-based study of the site area, identifying any known archaeological or historical sites within the site and its environs, identifying potential setting impacts on scheduled ancient monuments or listed buildings in the vicinity, identifying any historic landscape areas that may be affected by the proposals and assessing the potential for hitherto unknown archaeological remains to be present within the proposed development area.
- 1.4 An indication of what further archaeological works might be required, if any, will also be prepared.
- 1.5 The specification is in accordance with the *Standard and Guidance for Archaeological Desk-Based Assessments* (Institute for Archaeologists (IfA), 1994, revised 2001).
- 1.6 The Trust always operates to best professional practice. Dyfed Archaeological Trust Field Services has its own Health and Safety Policy, and all works are covered by appropriate Employer's Liability and Public Liability Insurances. Copies of all are available on request.
- 1.7 Dyfed Archaeological Trust is an IfA Registered Archaeological Organisation.
- 1.8 All permanent staff members of Dyfed Archaeological Trust Field Services are CSCS⁴ registered.

⁴ Construction Skills Certification Scheme (Health and Safety Tested)

2. AIM AND OBJECTIVES OF THE PROJECT

2.1 This document provides a scheme of works for:

The preparation of a historic environment appraisal for two proposed wind turbines at Blaenlliedi Farm, near Pontyates, Carmarthenshire (NGR SN 51148 07971 and NGR SN 51110 07858.). The report will assess the potential impact the development may have on any underlying archaeological remains, if present within the area, and an assessment of the wider impact of it on the historic environment. The assessment shall be presented within a report which will be submitted with the planning application for the wind turbine.

- 2.2 Provision of a written scheme of investigation to outline the methodology by which Dyfed Archaeological Trust Field Services will undertake appraisal.
- 2.2 To identify any known archaeological remains and assess the potential of any hitherto unknown archaeological deposits within the location of the water treatment works and any associated infrastructure.
- 2.3 To identify any known historic environment features within the wider area that could be affected indirectly by the proposed works.

3. HISTORIC ENVIRONMENT APPRAISAL Methodology

- 3.1 The historic environment appraisal will involve the preparation of a standalone report. The report will be prepared using relevant information from a number of sources, and will comprise a number of elements, including:
 - Dyfed Archaeological Trust Historic Environment Record data and other relevant information (including a review of online information held on the RCAHMW Coflein site);
 - Identification of any Scheduled Ancient Monuments, Listed Buildings, Conservation Areas or Historic Landscape Areas within or in the vicinity of the site area from information held by Dyfed Archaeological Trust, CADW and CCW;
 - Readily available bibliographic information, cartographic material and photographs (including aerial photographs) held at the Trust;
 - A review of historic maps;
 - Relevant web-based information;
 - Site visit and walkover survey;
 - Assessment of the archaeological potential of the area; and
 - Assessment of likely impacts on any identified remains (or potential remains) or setting issues and likely requirements, if any, for further stages of archaeological work.
- 3.2 The proposed site visit would be undertaken to provide an assessment of the presence of any visible archaeological remains within the development area and its visibility from nearby cultural heritage features. Photographs will be taken of the site area and its environs and these will be used within the report.

- 3.3 A 2km search area will be used to determine the presence of designated historic environment features within the site location for and vicinity of the wind turbines. This will identify Scheduled Ancient Monuments, Listed Buildings and Historic Landscape Characterisation areas etc. A 1.5km search area will be used for non-designated archaeological sites recorded on the regional Historic Environment Record and RCAHMW National Monuments Record.
- 3.4 The following will be considered when preparing the assessment, although in some cases no such features may be present and will thus not be considered further:
 - a. Scheduled Ancient Monuments {SAMs} and their settings;
 - b. Non-scheduled ancient monuments and their settings;
 - c. Listed buildings and their settings;
 - d. Non statutory Buildings of Local Importance, where this information is readily available and relevant to the proposed development;
 - e. Registered Parks and Gardens and their essential settings;
 - f. Registered Historic Landscapes;
 - g. Non-registered historic landscapes;
 - h. Buried archaeological potential;
 - i. Palaeo-environmental potential;
 - j. Hedgerows and field patterns;
 - k. Ancient woodland;
 - I. Place-name evidence;
 - m. Newly identified sites of historic importance;
 - n. Cumulative impacts, e.g. wind turbines in close proximity;
 - o. Any Tir Gofal interests or requirements (where relevant); and
 - p. LANDMAP and landscape characterisation information.
- 3.5 A report will be prepared on the results of the assessment. This report will include information on known sites within and in the vicinity of the proposed development site. Maps of known archaeological and historical sites will be presented in the report. Photographs will be used where appropriate.
- 3.6 The report will be fully representative of the information gained from the above methodology, even if there should be negative evidence. The report will include the following:
 - a) A concise non-technical summary of the appraisal results.
 - b) The report will contain at least one plan showing the site's location in respect to the local topography.
 - c) The report should list all the sources consulted.
 - d) Where necessary, the report will also contain suitably selected plans and maps (including historic maps) of significant archaeological features.

- e) Written descriptions of all archaeological features observed during the site visit.
- f) Statement of the local and regional context of the historic assets identified. Consideration, where appropriate, of the national Research Agenda.
- g) An assessment of the relative value or significance of each recognised historic asset.
- h) An impact assessment of the proposed development on the potential archaeological resource.
- 3.7 Once completed, a copy of the report will be submitted to the LPA for the consideration of their archaeological advisers. A further copy of the report should be provided to the Dyfed Archaeological Trust for deposition within the Regional Historic Environment Record (HER).
- 3.8 Where appropriate, a summary report on any new significant archaeological discovery will be submitted for publication to a national journal (e.g. Archaeology in Wales) no later than one year after the completion of the work.
- 3.9 Although there may be a period during which client confidentiality should be maintained, the report and the archive should normally be deposited in the appropriate repository not later than six months after completion of the work.

4 STAFF

- 4.1 The project will be managed by J Meek MIFA, Head of Field Services.
- 4.2 The report and site walkover survey will be undertaken by Simon Ratty, an experienced member of Field Services staff.

5. HEALTH AND SAFETY

- 5.1 All permanent members of Dyfed Archaeological Trust Field Services staff are CSCS⁵ registered.
- 5.2 Dyfed Archaeological Trust Field Services will carry out a health and safety risk assessment prior to the site walkover survey to ensure that all potential risks are minimised.
- 5.3 All relevant health and safety regulations must be followed where advised by the client.
- 5.4 As the site visit will likely be undertaken by a single archaeologist, it may be necessary to implement lone working procedures and contacts.

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⁵ Construction Skills Certification Scheme (Health and Safety Tested)

PROPOSED WIND TURBINES AT BLAENLLIEDI FARM, PONTYBEREM, CARMARTHENSHIRE

RHIF YR ADRODDIAD / REPORT NO. 2013/59 RHIF Y DIGWYDDIAD/ EVENT RECORD NO. 105804

> Medi 2013 September 2013

Paratowyd yr adroddiad hwn gan / This report has been prepared by:
Simon Ratty

Swydd / Position: Archaeologist

Llofnod / Signature Dyddiad / Date 26/09/13

Mae'r adroddiad hwn wedi ei gael yn gywir a derbyn sêl bendith

This report has been checked and approved by:
James Meek

ar ran Ymddiriedolaeth Archaeolegol Dyfed Cyf.
on behalf of Dyfed Archaeological Trust Ltd.

Swydd / Position: Head of Field Services

Llofnod / Signature Dyddiad / Date 26/09/13

Yn unol â'n nôd i roddi gwasanaeth o ansawdd uchel, croesawn unrhyw sylwadau sydd gennych ar gynnwys neu strwythur yr adroddiad hwn

As part of our desire to provide a quality service we would welcome any comments you may have on the content or presentation of this report

pymddiriedolaeth archaeolegol DYFED archaeological trust