

BLAEN BOWI WIND ENERGY PROJECT CARMARTHENSHIRE

ARCHAEOLOGICAL WATCHING BRIEF JANUARY 2002



Report No. 2002/19

Report Prepared for: WINDJEN



CAMBRIA ARCHAEOLOGY

REPORT NO. 2002/19 PROJECT RECORD NO. 44299

MARCH 2002

BLAEN BOWI WIND ENERGY PROJECT, CARMARTHENSHIRE ARCAEOLOGICAL WATCHING BRIEF JANUARY 2002

By

Pete Crane BA Hons MIFA

Cambria Archaeology is the marketing name of the Dyfed Archaeological Trust Limited.

The report has been prepared for the specific use of the client. The Dyfed Archaeological Trust Ltd can accept no responsibility for its use by any other person or persons who may read it or rely on the information it contains.

ARCHAEOLEG CAMBRIA
Ymddiriedolaeth Archaeolegol Dyfed Cyf
Neuadd y Sir, Stryd Caerfyrddin, Llandeilo, Sir Gaerfyrddin SA19 6AF
Ffon: Ymholiadau Cyffredinol 01558 823121
Adran Rheoli Treftadaeth 01558 823131
Ffacs: 01558 823133

Ebost: cambria@acadat.com Gwefan: www.acadat.com

CAMBRIA ARCHAEOLOGY

Dyfed Archaeological Trust Limited

The Shire Hall, Carmarthen Street, Llandeilo, Carmarthenshire SA19 6AF

Tel; General Enquiries 01558 823121

Heritage Management Section 01558 823131

Fax: 01558 823133

Email; cambria@acadat.com Website; www.acadat.com

The Trust is both a Limited Company (No. 1198990) and a Registered Charity (No. 504616)
CADEIRYDD CHAIRMAN: B.C.BURNHAM, MA PHD FSA MIFA, CYFARWYDDWR DIRECTOR: E G HUGHES BA MIFA

CONTENTS

SUMMARY	l
INTRODUCTION	1
SITE HISTORY	1
AIMS AND OBJECTIVES	
METHODOLOGIES AND RESULTS	5
DISCUSSION	8
ACKNOWLEDGEMENTS	8
ARCHIVE DEPOSITION	8
REFERENCES	8
APPENDIX 1: COPY OF BRIEF	10
APPENDIX 2: CATALOGUE OF WATCHING BRIEF ARCHIVE	14
FIGURE 1: LOCATION	15

SUMMARY

An archaeological watching brief was undertaken in January 2002 in advance of the installation of three wind generators, excavation of a associated borrow pit and construction of trackways around Moelfre Hill, near Newcastle Emlyn, Carmarthenshire. The remains of three Bronze Age barrows lie on the hill's summit and post medieval features on the slopes of the hills around. No known archaeological features lay within the area of the groundworks and no significant archaeological features were recorded during this project.

INTRODUCTION

Cambria Archaeology were invited by Windjen Power Limited, Plas Eirias, Abergele Road, Colwyn Bay, LL29 8BF to submit a quotation for undertaking a watching brief during construction of three wind generators at Blaen Bowi. A quotation was submitted on 28th September 2001 and accepted on 18th December 2001.

Prior to the construction of this wind farm an archaeological assessment had been undertaken by Richard Ramsey of Cambria Archaeology for Dulas Limited in September 1999 and revised in March 2000. This assessment covered a larger area than that involved in the final construction plan and reported that the only known archaeological remains within the proposed development were a few field boundary banks and one probably post medieval trackway (PRN 39011). The current scheme utilised a farm track that cut through the route of the probably post medieval trackway (PRN 39011).

This project comprised the construction of three wind generators, each of 1.3mw rated capacity, 76m to blade tips, and with base foundations $c.20m \times 20m$ square. Topsoil was stripped for a temporary site compound, and a borrow pit, $c.130m \times 60m$, excavated for hard-core. To enable construction of the generators access trackways 4.5m wide and totalling c.1300m in length were constructed.

SITE HISTORY

Edited from the archaeological assessment Site location and topography

Blaen Bowi wind energy site occupies two separate fields with a large borrow pit in a further field and trackways crossing another three fields. The scheme lies almost entirely within the 1km National Grid square SN 320 350. The site, and indeed the area as a whole, is dominated by Moelfre, a hill (photo front cover) which, though isolated, forms an extension of the upland bloc to the west, rising to a summit height of 335m OD. The project area occupies its southern flank, lying between 325m and 260m OD. The B4333 Newcastle Emlyn to Cynwyl Elfed road bounds the site to the east and a minor road to Capel Iwan bounds it to the south. Generally the fields within which the scheme lies slope gradually down to the south and east from summit of Moelfre.

The underlying solid geology consists of Ordovician shales of the Ashgill series with little evidence of remnant drift deposits (British Geological Survey, 1994). The natural soil is a Cambic stagnohumic gley with some Manod C brown podsoils on the lower slopes (Soil Survey of England and Wales, 1983).

All the fields within the project area are currently under pasture, mostly for sheep, and are very occasionally shallow ploughed (Mr. Guto Jones, landowner, *pers. comm.*). The fields surrounding Waun Lwyd (PRN 39014), a deserted settlement immediately to the north, and outside, the project area are currently pastured.

The project area is split unevenly between the parishes of Cenarth and Llangeler. It is not included within the Cadw/ICOMOS register of Landscapes of Outstanding Historic Interest in Wales.

Landscape history and development

The project area and its surrounding region have been subject to human settlement from prehistoric times onwards; settlement, however, later declined and was not to rise again probably until the post medieval period. Very little recorded archaeology was represented within the project area and the present study has recorded only a few new sites. The agricultural landscape of the area - its fields, hedges and most of the boundaries - are a relatively recent creation.

The prehistoric and Roman periods (8500 BC - c.400 AD)

Like many primarily upland Welsh landscapes, the project area and its environs have preserved much evidence of prehistoric activity, chiefly in the form of standing earthworks from the bronze age (2500 - 700 BC), and iron age (700 BC - 1st century AD). Preservation has been assisted by the low-intensity agricultural regimes traditionally practiced within the region. Nevertheless, the distribution of such sites is not dense in the environs of the project area, although more may be revealed by future fieldwork. Evidence for earlier prehistoric activity within Carmarthenshire as a whole is mainly limited to knowledge obtained through examination of palaeoenvironmental evidence from peat deposits.

Three bronze age round barrows or burial mounds (Crugiau Moelvre; PRNs 2274 - 2276 inclusive)(figure 1) form prominent landscape features of the region, occupying the summit of Moelfre immediately to the north of the project area (RCAHM, 1917, 225). They represent a site type that is present in relatively large numbers within the landscape in this region, suggesting a settled population during this period.

Early medieval (c.400 - 1110 AD)

Pre-Norman administration of West Wales was based on small kingdoms or gwledydd, which had been established before the 8th century AD. One such gwlad was Dyfed which, at this time, comprised what is now Pembrokeshire and western Carmarthenshire. Within each gwlad were smaller units of administration or estates known as cantrefi, which derived their name from their composition from a hundred

'townships' or *trefi*; the cantref was divided into groups of trefi called *cwmwdau* (or 'commotes'). The precise date for the evolution of the latter administrative units is not known, however, and they may have arisen during the post-Conquest period. The project area lay within the commote occupying that part of Cantref Emlyn east of, and above, the River Cych, and for that reason became known as Emlyn Uwch Cych (Rees, n.d., 24-5; Richards, 1969, 66).

The area formerly lay within the parishes of Penboyr and East Cilrhedyn, the parish churches of which both appear to have origins within the later medieval period, at least (Ludlow, 1998, (a) and (b)). Later 19th century changes to the parish boundaries left it lying within Cenarth and Llangeler, whose churches have equally early origins. However, formal parish administration was an Anglo-Norman introduction into Carmarthenshire where it was not firmly fixed until the post-medieval period and, in areas, was not finally defined until relatively recently

Whilst much speculation can be undertaken on the nature and extent of pre-Norman administration, both ecclesiastical and secular, there is scant record for this period in terms of physical archaeology within the region, and none in the immediate environs. This absence is a characteristic of upland Carmarthenshire as a whole.

Later medieval (1110 - 1500 AD)

The post-Conquest history of the region may, unlike the early medieval period, have left some evidence of human land use within the project area.

Unlike so much of the surrounding area Emlyn Uwch Cych remained in Welsh hands for nearly 200 years after the initial Anglo-Norman conquest of South-West Wales, which saw Emlyn Is Cych - the other commote of Cantref Emlyn - divorced from the cantref to form the Anglo-Norman Lordship of Cilgerran (Hilling, 1992, et al.). From its centre at Newcastle Emlyn, Emlyn Uwch Cych was to form an axial component of the estates of the great Rhys ap Gruffydd ('The Lord Rhys'), the last native lord of southwest Wales and a major baron in his own right during the 12th century. His grandson, Rhys ap Maredudd, secured his hold on the region by building the castle from which Newcastle Emlyn derives its name.

Several other castles were founded within Emlyn including Tomenseba (PRN 2273), a motte castle - possibly without a bailey - lying some 900m due north of the project area (Rees, 1932; RCAHM, 1917, 226). The context for the establishment of the latter is not known, however; it may be a castle of the Welsh lords but equally may represent an Anglo-Norman campaign castle of brief occupation.

In either case, the immediate environs of the project area represented a 'Welshry', ie. land held under existing, native forms of tenure as opposed to the familiar manorial system typical of the 'Englishries'. Land may therefore have been farmed piecemeal from a common bloc of land, possibly represented by the common known to have occupied Moelfre and its environs in the post medieval period (see below). There is no reason why the trackways within the area (PRNs 39010 and 39011), which might even represent an early north - south routeway across Moelfre prior to the establishment of the B4333 route, may not have their origins within the medieval period, while to the north a pattern of cropmarks may represent former field

boundaries associated with a drainage system for which there is no ground evidence. However, the latter lie beyond the project area. They may be prehistoric in origin, or be 'assarts' (encroachments made into marginal land) belonging to the land-hunger at the close of the medieval period.

The area remained in Welsh hands until 1289 when, after an unsuccessful rebellion, Rhys ap Maredudd's lands were confiscated by the crown and remained intermittently in royal hands until 1536 when, at the Act of Union, Emlyn Uwch Cych was absorbed into the County of Carmarthen. Emlyn Is Cych became a part of Pembrokeshire.

East Cilrhedyn Parish lay either side of the River Cych, in both the lordship of Cilgerran and Welsh Emlyn and similarly came to lie in both Carmarthenshire and Pembrokeshire.

The post-medieval period (1500 AD to present)

The post-medieval period in Carmarthenshire is characterised by a rapid population acceleration from at least the mid 18th century, reaching a high point in 1871; in the rural north of the county there has been subsequently a steady decline.

The population increase has left its mark on the landscape in many forms, chiefly the enclosure of moorland and common land, often including its cultivation, and the establishment of new settlements on the fringes of marginal land. The result of both of these trends can be seen within the project area.

The tithe map for Penboyr parish, of 1840, and East Cilrhedyn parish, of 1841, show that most of the project area was, by this period at least, common land; in this case, the definition meant unenclosed moorland which was not always subject to all the legal restrictions on common usage. The process of enclosure of the Carmarthenshire landscape has, as has been noted, its origins within the prehistoric period, but the vast majority of present field systems have their origins within the 18th and 19th centuries, a phenomenon common to many predominantly upland areas. The driving mechanism took a number of forms - parliamentary enclosure, enclosure by estates, enclosure by private individuals and enclosure by squatters on the fringes of common land. The tithe maps show that by 1841 the fields on the north side of the Capel Iwan road were partially enclosed.

Map evidence shows that almost all of remainder of the present field boundaries within the project area were established between 1841 and 1891 (Kilrhedyn and Penboyr parish tithe maps; Ordnance Survey 1:10560 First Editions). The underlying process was probably parliamentary enclosure, but in the absence of an award map this cannot be proven; an award map of the area to the east, in the National Library of Wales (1866), does not include the project area but demonstrates that the process was underway by at least 1866.

The trackways (PRNs 39010 and 39011) appear to reflect the present system of boundaries and may thus be contemporary with its enclosure; however, it may be equally possible that these boundaries followed pre-existing trackways (see above).

Two dwellings, to north of the project area, PRN 39013, and Waun Lwyd (PRN 39014) date from the later 19th century. A gravel pit PRN 15895 was established between 1891 and 1907.

The extensive coniferous plantation undertaken to the south and west of the project area since the mid 20th century represents the greatest change in the land-use of the area since the clearances of the prehistoric period. However, none of this encroaches on the project area itself.

AIMS AND OBJECTIVES

The aim was to record and ascertain the nature of any archaeological features revealed in the controlled archaeological topsoil strips and if significant archaeological features were found, to undertake necessary archaeological action.

METHODOLOGIES AND RESULTS

This watching brief entailed observation of topsoil striping dug under archaeological supervision at three locations for the foundations for wind generators (figure 1)—National Grid References SN 232400 235780, SN 232505 235970 and SN 23290 235910. Test topsoil strips were also observed at the temporary site compound and borrow pit. A test topsoil strip was also dug along the lengths of the trackways. In some instances owing to the pressure of construction the track was stripped and driven over almost immediately. Where this happened the full with of the trackway strip was observed.

The weather was relatively dry but frequently misty during the first week, however there had been snow previously and the surface conditions were quite slippery. In the second week the weather conditions deteriorated with a lot of driving mist and rain.

Boundaries

Boundaries cut by the project were recorded and given Primary Record Numbers. (figure 1)

PRN 44305 (SN 32603537) on the north side of the Capel Iwan road. This shows that the road has been cut into the slope. The bank consisted of a lower layer of orange clay loam, probably derived from cutting in of the road, and an upper bank layer of humic soil. The bank is not hedged but has sparse scrub/small trees and a post and wire fence. One scrub tree was removed.

Tithe 1841 No

OS 1887 Survey Yes

PRN 44306 (SN 32583555). Earth bank 0.9m high was cut by an access trackway towards its northern end. Towards its southern end it is almost double banked. The bank is topped mostly with conifers 4-5m high and post and wire fenced on either side. The access trackway cut showed a former ditch (probably dug for bank material rather than drainage) along most of its western edge, and where cut across by the access trackway there was a another former ditch on the east side.

Tithe 1841 No OS 1887 Survey Yes

PRN 44307 (SN 32483572). Earth and stone steep sided bank 1.2m high and 2.75m wide (not cut by access trackway), topped by sparse gorse and thorn, also with the remains of former fence posts. Now post and wire fenced on both sides. Boundary line appears to have continued straight on at its western end (see PRN 44312). Parish Boundary.

Tithe 1841 Yes OS 1887 Survey Yes

PRN 44308 (SN 32423568). Slight earth bank 0.3m high towards its northern end. Planted with conifers. Post and wire fences on both sides. Access trackway strip indicated that a gateway at northern end was probably originally narrower with a slight ditch on east side (uncertain).

Tithe 1841 No OS 1887 Survey Yes

PRN 44309 (SN 32453585). Steep sided earth and stone bank 0.75m high and 2.2m wide. Bank topped with patchy thorn scrub and gorse also former fence posts. There is some stone on this bank including some quartz including one massive quartz bolder. The bank is now fenced on both sides. Parish Boundary.

PRN 44310 (SN 32853572). Earth and stone bank 0.6m high and 1.75m wide. Capped with sparse thorn and with 1 remaining mature tree and 1 or 2 removed by the access trackway cut at western end. Post and wire fenced on both sides.

Tithe 1840 No OS 1887 Survey Yes

PRN 44311 (SN 32753559). Earth bank 0.8m high on north side and 0.5m high on south side. Very occasional scrub gorse, and wire fenced on both sides. Access trackway strip showed former ditches on both sides. Parish Boundary.

Tithe 1840 No OS 1887 Survey Yes

PRN 44312 (SN 32353578). Former boundary, now only shows as slight earthwork continuing the line west from PRN 44307. Where stripped by the access trackway a ditch was indicated on its northern side. Date unknown.

Tithe 1840 Yes OS 1887 Survey Yes Still shown in 1964

Access Trackways

The total length of the access trackways was intended to have a bucket-wide (c.2m) wide topsoil strip carried out under archaeological supervision. As stated above this could not practicably take place, and only the length of trackway from the Capel Iwan road to the north corner of the borrow pit/compound was stripped under archaeological observation. Adjacent to the road there were large periglacial features, confirmed by a rapid hand-dug test pit. Located 30m to 33.5m south of the southeast corner of the compound there was a very shallow ditch cutting 100mm into the subsoil and 1m wide running NW-SE. This feature appeared to relate to the former ditch on the west side of boundary PRN 44306 and is of post medieval or later date, and could been a temporary division of the field. In the subsoil of this fully stripped section of

the access trackway there were a number of small glacial or periglacial features, modern plough marks, and holes where stones had been ploughed out of the subsoil. The topsoil was *c*.220mm deep.

North of the compound and northwest to generator locations 1 and 2 a bucket-width topsoil strip was undertaken; no features were seen other than the former boundary PRN 44312. However west of boundary PRN 44308 to former boundary PRN 44312 the upper part of the subsoil was very stony and apparently disturbed and therefore archaeological features could have been missed. The topsoil in the northern part of the field with the compound was shallower, c.130mm deep. The topsoil in the length of trackway from generator location 1 to 2 was very shallow, down to c.70mm and the subsoil was also stony and again did not lend itself to the observation of archaeological features. It is considered however that it is unlikely that any artificial features were missed and all of the slight undulations on this sector proved to be of geological origin.

East of the compound and northeast to generator location 3 a bucket-width topsoil strip was again undertaken. Except for the boundaries recorded above, no features other than geological or modern agricultural plough marks and stone pulls were seen. Plough marks in the field containing generator 3 ran southwest to northeast. The topsoil was about 220mm deep along the whole of this length.

Generator Locations

At both generator locations 1 and 2 a bucket-width strip of topsoil was excavated approximately east - west across the generator footprints and joining up to the trackway. These locations were slightly off the slope crest and the underlying subsoil was less stony but with a slightly greater depth of topsoil. No artificial features were seen.

At generator location 3 a similar strip was excavated on the northern side of the footprint down to a grey clay layer with small angular stone subsoil. No features were seen.

Borrow Pit and Temporary Compound

Initial east - west topsoil strips 2m wide with gaps of 2m between them were undertaken in the northeastern area of the compound. Some of these were excavated with a toothed bucket but where this was done excavation was continued slightly into the subsoil and any features checked by hand. All features proved to be geological, modern ploughing marks or stone pulls except for some which were probably sheep rub holes. Further sheep rubs can still be seen open in the field outside the compound. Two of these holes were half-sectioned and drawn and one contained a flat stone, possibly part of a hearth. Below this flat stone was a minute fragment of brown glazed late post medieval or modern pottery. The rest of the area was crossed with 2m wide topsoil strips along the edges of the compound, along the bottom of the break of slope and widely spaced strips running north - south (sketch plan in archive). One narrow ditch and/or plough furrow, 0.5m wide and 120mm deep into the subsoil, was found running east - west at a slight angle across the top break of slope. The fills indicate that this feature was probably left open for a short time, slightly silting before being filled in with topsoil. A plough furrow or temporary division of the field when arable

cultivation took place seems the most likely explanation for this. All plough marks seen were running north to south in line with the field boundaries and were modern in nature.

DISCUSSION

As pointed out by the archaeological assessment there were no known archaeological features (other than a trackway) that lay within the final project groundworks. The area is dominated by Moelfre hill (Photo front cover) with its three Bronze Age barrow and is likely to have been cleared farmland. Land which is now upland pasture was often less poor in the Bronze Age and field systems of this period are still visible in areas of the British uplands such as Dartmoor. Therefore, there is the possibility that evidence of prehistoric boundaries may exist as subsoil features. However no archaeological features, other than post medieval boundaries and modern agricultural features were seen. No artefacts of any kind, including modern pottery, were found, other than the modern/post-medieval fragment from the possible hearth, perhaps a picnic fire, in the borrow pit compound. No peaty or alluvial deposits suitable for sampling for environmental evidence were recorded.

The method of undertaking a 2m wide stripping of topsoil under archaeological supervision appears to be the correct way to assess any archaeological potential on a project such as this where a considerable area of disturbance is to take place and where there is potential but no known archaeology.

ACKNOWLEDGEMENTS

Dylan Jones and Danny Jones of Windjen. Richard Ramsey and Hubert Wilson of CAMBRIA for the archaeological assessment material used in this report.

ARCHIVE DEPOSITION

This will be deposited with the Dyfed Archaeological Trust, Sites and Monuments Record.

REFERENCES

List of sources consulted

Databases

Sites and Monuments Record for Carmarthenshire, Ceredigion and Pembrokeshire, curated by *Archaeology*, Shire Hall, 8 Carmarthen Street, Llandeilo, Carmarthenshire.

Manuscript maps

National Library of Wales, 'Emmanuel Bowen's Map of South Wales', 1729

National Library of Wales, Ordnance Survey Original Surveyors' Drawings, 2" to the mile, Sheet 187, 1811-12 (revised 1832).

National Library of Wales, Parish of Penboyr, Tithe Map and Apportionment, 1840

National Library of Wales, Parish of Kilrhedyn, Tithe Map and Apportionment, 1841

National Library of Wales, Plan of the Llangeler, Penboyr and Kilrhedyn Inclosure, County of Carmarthen Enclosure Award, 1866. Scale, 8 Chains to the inch.

Rees, W., 1932, South Wales and the Border in the XIVth century.

Published maps

ADAS Series Agricultural Land Classification Map, Wales, 1:250000, 1977

British Geological Survey, Geological Map of Wales 1: 250000 1st edition Solid, 1994

British Museum, Maps C.7 c.1., Saxton's Map of Radnorshire, Brecknockshire, Cardiganshire and Carmarthenshire, of 1578.

Ordnance Survey, 1" to the mile Old Series, Sheet 41, 1831.

Ordnance Survey, 1:10560, Carmarthenshire Sheet XXII NE, First Edition, 1891 (Surveyed 1887)

Ordnance Survey, 1:10560, Carmarthenshire Sheet XXII NE, Second Edition, 1907 (1904 Revision from 1887)

Ordnance Survey, 1: 10560, Carmarthenshire Sheet XIII SE, First Edition, 1891 (Surveyed 1887)

Ordnance Survey, 1: 10560, Carmarthenshire Sheet XIII SE, Second Edition, 1907 (1904 Revision from 1887)

Ordnance Survey, 1:10560, Sheet SN 33 NW, 1964

Ordnance Survey, 1:10560, Sheet SN 33 SW, 1964

Ordnance Survey, 1:25000, Explorer 185, 1998 Revision

Rees, W., 1932, South Wales and the Border in the XIVth century.

Soil Survey of England and Wales, 1:250000, Sheet 2. Wales, 1983 Aerial photographs

RAF 106G/UK/1471 Frame Nos. 3256, 3257 and 3258 (National Monuments Record). 1948

Meridian Air Maps SN33SW 230/230 10939 and 10940. 1955

Meridian Air Maps SN33SW 230/230 37521 and 37522. 1955

Meridian Air Maps SN33NW 230/230 37531 and 37531. 1955

Unpublished works

Ludlow, N., 1998 (a), 'St Llawddog, Cenarth', *The Welsh Historic Churches Project, Carmarthenshire* (unpublished *Archaeoleg Cambria Archaeology* client report; copy held with Sites and Monuments Record for Carmarthenshire, Ceredigion and Pembrokeshire).

Ludlow, N., 1998 (b), 'St Celer, Llangeler', *The Welsh Historic Churches Project, Carmarthenshire* (unpublished *Archaeoleg Cambria Archaeology* client report; copy held with Sites and Monuments Record for Carmarthenshire, Ceredigion and Pembrokeshire).

Ludlow, N., 1998 (c), 'St Llawddog, Penboyr', *The Welsh Historic Churches Project, Carmarthenshire* (unpublished *Archaeoleg Cambria Archaeology* client report; copy held with Sites and Monuments Record for Carmarthenshire, Ceredigion and Pembrokeshire).

Published works

Hilling, J. B., 1992, Cilgerran Castle, St Dogmaels Abbey; Pentre Ifan Burial Chamber; Carreg Coetan Arthur Bural Chamber.

Lewis, S, 1833, A Topographical Dictionary of Wales, Vol II.

Lloyd, J. E. (ed.), 1939, History of Carmarthenshire.

Parry, C., 1987, 'Survey and Excavation at Newcastle Emlyn Castle', *The Carmarthenshire Antiquary*, Vol. XXIII.

RCAHMW, 1917, Inventory: Carmarthenshire.

Rees, W., n.d., An Historical Atlas of Wales.

Richards, M., 1969, Welsh Administrative and Territorial Units.

APPENDIX 1: COPY OF BRIEF

Brief for Archaeological Watching Brief

Site: Blaen Bowi Windfarm, Capel Iwan, Carmarthenshire

Prepared for: Windjen Power Limited

Site Location: Grid squares SN320 340 and SN320 350

This design brief is only valid for six months from the above date. After this period Cambria Archaeology - Heritage Management should be contacted. Any specification resulting from this brief will only be considered for the same period. Please note that this document is written for archaeological project managers to facilitate the production of an archaeological specification of works, it is <u>not</u> a tender document. Any response to this brief should follow IFA Standards and Guidelines.

The project manager is strongly advised to visit the site before completing their specifications as there may be implications for accurately costing the project. The project manager must consult the County Sites and Monuments Record held by Cambria Archaeology - Heritage Management as part of the assessment.

1.0 Introduction

2.1 This document is a design brief setting out the requirements to fulfil an archaeological condition placed on planning consent for planning application W/03608 for the construction of Blaen Bowi Windfarm. The condition has been attached to planning consent in line with PG (W) and Welsh Office Circular 60/96 - 'Planning and the Historic Environment: Archaeology.'

2.0 Site description

- 2.1 The wind farm site lies in a site covering 64 hectares in NGR squares SN 320 340 and SN 320 350. The site is bounded by the B4333 Newcastle Emlyn to Cynwyl Elfed road and bisected east to west by a minor road to Capel Iwan. The site lies between 325m and 260 m OD on land sloping down from Moelfre to the Capel Iwan road. The geology of the site is Ordovician Shale of the Ashgill series.
- A. Cambria Archaeology Field Operations undertook an archaeological assessment of the proposed wind farm site in September 1999, PRN 39006. This assessment recorded five archaeological sites within the project area including a destroyed post medieval cottage (PRN 22605), two trackway sections (PRN 39010 and PRN 39011) a gravel pit (PRN 39012) and a post-medieval cottage (PRN 29012). A number of field boundaries were also recorded. our sites were recorded immediately outside the project area; three existing and one newly recorded. The existing sites were a group of three adjacent round barrow burial mounds (PRN 2274, 2275 and 2276) which are classified as a Scheduled Ancient Monument Carm 107. The new site was also recorded, that of a deserted dwelling (PRN 39014).
- 2.1 We are pleased to note that the wind farm structures as shown on the detailed plan provided by Windjen Power Ltd have avoided the sites of known archaeology. There is still a potential however for un-recorded archaeology especially due to the proximity of turbine number 2 to the burial mounds (PRNs 2274 to 2276).

3.0 The nature of the development and the archaeological requirements

3.1 Planning permission has been given for the construction and operation of 3 wind turbine generator each of 1.3mw rated capacity, 76m to blade tips and access track, one control building, one borrow pit, meteorological mast and temporary storage ground. Locations for the intended features are shown on the map provided, with the turbines being located at 232400 23570 (turbine 1), 232505 235970 (turbine 2) and 232940 235920 (turbine 3). The borrow pit is located at 232500 235600, the temporary site compound at 232560 235450 and the control building at 233050 235850. The access tracks largely follow the insides of the site boundaries but may require cutting through them in a few places.

4.0 Methodology

4.1 Site Works

1. Because a site assessment report has been produced (PRN 39006) this should be used to enable the results of monitoring, investigation and recording to be set in their geographical, topographical, archaeological and historical context should be undertaken prior to the commencement of on site work.

- Discussions were had with Mr Bellis of Windjen concerning site work methodology. It is Windjen's intention to excavate the borrow pit first to obtain stone for the roads, then to strip the roadways and then the turbine bases and bases for the other structures on the site. It was agreed between Lucy Rowley-Williams and Mr Bellis that the topsoil will be stripped with a toothless ditching bucket in the areas of the borrow pit, roadways, mast and structure bases. Time will be allowed within the programme for archaeological recording of any features observed.
- 3. An archaeologist should be present on site for all areas of topsoil disturbance, and for areas of subsoil disturbance where features were observed in the topsoil. Winjen should ensure that the archaeological contracting organisation are kept aware of the construction programme and any deviation from it.
- 4.1.3 The following monitoring methods should be considered depending upon the type of construction methods to be used on site
 - 1. Archaeological monitoring of top-soil clearance
 - 2. Inspection of subsoil for archaeological features
 - 3. Recording of all archaeological features in plan
 - 4. Rapid sample excavation to investigate features
 - 5 Subsoil stripping under archaeological supervision
 - 6 Further inspection to identify archaeological features and recording
- 4.1.4 A report should be produced following the conclusion of on site work
- 4.2 Should extensive remains be identified a review meeting will be held between the site engineer, archaeological project manager and Cambria Archaeology Heritage Management to agree an appropriate sampling strategy

5.0 Objectives

- 5.1 To ensure that all archaeological features exposed during groundworks are recorded and interpreted to an acceptable standard.
- 5.2 To ensure that any significant discoveries of artefactual evidence are recorded and analysed to an acceptable standard.

6.0 Requirements

- 6.1 The project must be undertaken by an archaeological team of recognised competence, fully experienced in work of this character and formally acknowledged by Cambria Archaeology Heritage Management (CA HM) the regional archaeological curators. Details including the name, qualifications and experience of the project director and all other key personnel (including specialist staff) will be communicated to CA HM as part of the **project specification**. The contractor will be expected to produce a reasonably detailed project specification although a full programme of works will not be required.
- 6.2 This specification must:
 - 1. Provide a research design which sets out the site specific objectives of the archaeological works.
 - 2. Provide a timetable for the proposed works.

- 3. Indicate methods of recording.
- 4. State intended method of publication
- 6.3 Arrangements for long term storage and deposition of all artefacts must be agreed with the landowner and CA HM before the commencement of fieldwork.
- 6.4 The site archive should conform to the NMR (W) agreed structure (guidelines available) and be deposited within an approved store (normally this will be the appropriate local museum and/or NMR) on completion of site analysis and publication.
- A full report on the results of the watching brief should be prepared and presented to CA HM within 6 weeks of completion of the site works. This report must include the following:
 - 1. A concise non-technical summary of the project results.
 - 2. Location plan of identified features and structures.
 - 3. Where relevant section and plan drawings showing depth of deposits including present ground with Ordnance Datum, vertical and horizontal scale.
 - 4. Written descriptions of all features and deposits revealed and investigated and their considered interpretation.
 - 5. Statement of the local and regional context of the remains identified.
 - 6. Full specialists descriptions of artefacts and ecofacts discovered during the works.
- 6.6 In addition two copies of the final report should be provided for the Sites and Monuments Record. CA HM is responsible for monitoring all archaeological work within Carmarthenshire, the contractor must inform CA HM in writing detailing the proposed start date for the project. Once notified a **Project Record Number** will be allocated prior to on site work commencing, to be used on all site records.
- 6.7 Any changes to the specification that the contractor may wish to make after approval should be communicated to CA HM and approved on behalf of Carmarthenshire County Council
- 6.8 CA HM should be kept regularly informed about development both during the site works and subsequent post-excavation work.

As part of our desire to provide a quality service to all our clients we would welcome any comments you may have on the content or presentation of this design brief. Please address them to the author below.

Lucy Rowley-Williams
Cambria Archaeology
The Shire Hall Carmarthen Street
Llandeilo SA19 6AF

APPENDIX 2: CATALOGUE OF WATCHING BRIEF ARCHIVE

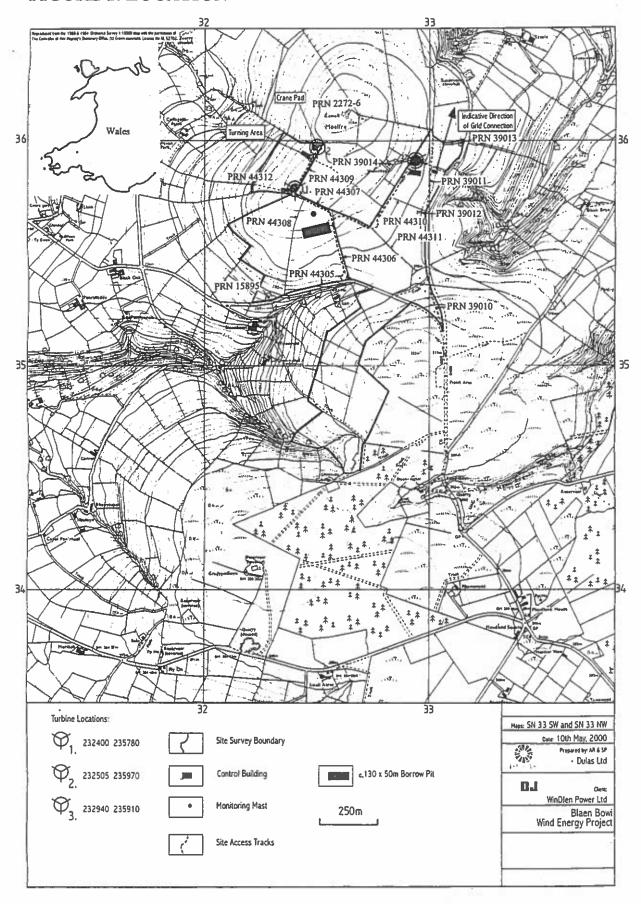
The project archive has been indexed and catalogued according to National Monument Record (NMR) categories and contains the following:

- A. Copy of final report.
- B. Site records, including context record sheets and site notebook.
- C. Drawing catalogue and site drawings.
- D. Site photographs catalogue, colour slide.
- E. Finds catalogue, individual finds record and finds report.
- G. List of references, including primary and secondary sources.
- I. Archive report and draft copies of final report.
- J. Publication drawings.
- M. Miscellaneous correspondence.

There is no material in categories F, H, K, L and N.

The archive is currently held by **Cambria** Archaeology Field Operations, Llandeilo, Carmarthenshire, as project number 44299.

FIGURE 1: LOCATION



BLAEN BOWI WIND ENERGY PROJECT, CARMARTHENSHIRE ARCHAEOLOGICAL WATCHING BRIEF JANUARY 2002

REPORT NUMBER 2002/19

MARCH 2002	-10
This report has been prepared by Pete Crane	
Position Senior Archaeologist	
Signature Mixrella Date 19 Manh 2002	
This report has been checked and approved by Ken Murthy on Dyfed Archaeological Trust Ltd.	a behalf of Cambria Archaeology,
Position Principle Archaeologist	
Signature Date 19 March 2002	
As part of our desire to provide a quality service we would we	