

PROPOSED WIND TURBINE AT HENDREWEN TURBINE PROJECT, NR FISHGUARD, PEMBROKESHIRE

HISTORIC ENVIRONMENT APPRAISAL NGR SM 93310 34658



Prepared by DAT Archaeological Services
For: Martin Horne of Winds Ltd.



DYFED ARCHAEOLOGICAL TRUST

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HENDREWEN TURBINE PROJECT, NR FISHGUARD, PEMBROKESHIRE HISTORIC ENVIRONMENT APPRAISAL NGR SM 93310 34658

Gan / By

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**HENDREWEN TURBINE PROJECT, NR FISHGUARD, PEMBROKESHIRE:
HISTORIC ENVIRONMENT APPRAISAL**

TABLE OF CONTENTS

	SUMMARY	1
1	INTRODUCTION	2
	1.1 Project Proposals and Commission	2
	1.2 Scope of the Project	2
	1.3 Abbreviations	3
	1.4 Illustrations	3
	1.5 Timeline	3
2	LOCATION AND TOPOGRAPHY	4
3	METHODOLOGY	5
4	ARCHAEOLOGICAL AND HISTORICAL BACKGROUND	6
	4.1 The Historic Landscape	6
	4.2 Scheduled Ancient Monuments	6
	4.3 Listed Buildings	9
	4.4 Known Archaeological Remains	11
	4.5 Historic Mapping	14
	4.6 Site Walkover Survey	15
5	IMPACT OF PROPOSED TRACK IMPROVEMENTS ON THE HISTORIC ENVIRONMENT	19
	5.1 Physical Impacts	19
	5.2 Buried Archaeological Potential	19
	5.3 Palaeo-environmental Potential	19
	5.4 Visual Impacts	19
	5.5 Other Constraints	19
	5.6 Summary of Impacts	19
6	SOURCES	20

FIGURES

Figure 1:	Location map based on the Ordnance Survey	4
Figure 2:	Map showing Scheduled Ancient Monuments within 5km of the proposed wind turbine	8
Figure 3:	Map showing listed buildings within 3km of proposed wind turbine	10
Figure 4:	Map showing distribution of archaeological sites recorded on the Historic Environment Record (red) and National Monuments Record (green) within 1.5km of the proposed wind turbine site	13
Figure 5:	Extract of 1 st edition OS map of 1889 showing the location of the proposed wind turbine (orange cross)	14
Figure 6:	Extract of 2 nd edition OS map of 1907 showing the location of the proposed wind turbine (orange cross)	14

TABLES

Table 1:	Archaeological and Historical Timeline for Wales	3
Table 2:	Summary of Registered Parks and Gardens within 5km	6
Table 3:	Scheduled Ancient Monuments within 5km of the proposed wind turbine	7
Table 4:	Listed buildings within 3km of the proposed wind turbine site	9
Table 5:	HER and NMR sites within 1.5km of the proposed wind turbine	11

PHOTOGRAPHS

Photo 1:	View north from turbine location	15
Photo 2:	View east from turbine location with ground level views already obscured by a large workshop and yard	16
Photo 3:	View south from turbine location towards Tre-Brython farm	16
Photo 4:	View south west from turbine location in general direction of SAM PE082 (not discernable)	17
Photo 5:	View west from turbine location looking towards Hendrewen Farm	17

HENDREWEN TURBINE PROJECT, NR FISHGUARD, PEMBROKESHIRE: HISTORIC ENVIRONMENT APPRAISAL

SUMMARY

DAT Archaeological Services was commissioned by Martin Horne of Winds Ltd., to prepare a Historic Environment Appraisal to provide more information about the potential effects of a proposed wind turbine at Hendrewen farm, near Fishguard in Pembrokeshire, upon the historic environment. This report will be used by planners to make an informed decision on the proposal with regards to archaeology and the historic environment.

The proposed wind turbine is located on agricultural land lying c.500m east of Hendrewen Farm, and c.1.1km northeast of Sledddau. The wind turbine will be located at NGR SM 93310 34658.

There are five Scheduled Ancient Monuments within 5km of the proposed wind turbine. There is one grade II listed building within 2.5km of the site and 11 grade II listed buildings within 2.5km of the turbine. The nearest Historic Landscape to the proposed development is that of Pen Gaer: Garn Fawr and Strumble Head which lies around 4.2km to the north. No conservation area or registered Historic Park or Garden lies within the 5km study area. There are twenty four known archaeological sites recorded on the Dyfed Historic Environment Record within a 1.5km radius of the proposed wind turbine.*

A site walkover survey was conducted on the 4th of June, 2015 in order to further assess the physical and visual impacts on any known archaeology within the proposed development site. No known designated or non-designated historical assets exist within the immediate vicinity of the proposed turbine and it is concluded that there will be no physical impacts on any known archaeology. However, there is a slight potential for unrecorded Prehistoric activity due to such activity known in the wider area.

Most historical assets in the area will not have their settings affected because of the local topography inhibiting inter-visibility. The Round Barrow on top of Jordanson Hill (SAM PE082) has good views overlooking the general area of the turbine, but it lies at a distance of almost 2km from the proposed turbine, and its size 36.6m in height to tip of blade, and the presence of an already existing turbine within its sight, the impact of the proposed turbine is considered to be low to negligible.

It is considered possible that a watching brief may be required during groundworks associated with the construction of the turbine and associated infrastructure. The decision for any further programme of archaeological works lies with the Archaeological Advisor to the Local Planning Authority.

1. INTRODUCTION

1.1 Project Proposals and Commission

- 1.1.1 DAT Archaeological Services were commissioned by Martin Horne of Winds Ltd., to prepare a Historic Environment Appraisal to provide more information about the potential effects of a proposed wind turbine on land at Hendrewen Farm, Manorowen in Pembrokeshire, upon the historic environment. The resulting report will enable the planners to make an informed decision on the proposal as regards to archaeological and historic environment issues.
- 1.1.2 The proposed wind turbine is located within a field of agricultural land lying c.700m east of Hendrewen Farm and c.3.3km southwest of Fishguard. The wind turbine will be located at grid reference SM 93310 34658. The proposal is for a single turbine being 24.8m to hub and 36.6m to blade tip.
- 1.1.3 This 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 as a fulfilment of a Written Scheme of Investigation 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 the 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 include the possibility that further archaeological input may be required prior to, or during, the proposed development.
- 1.2.3 The proposed wind turbine lies within the planning jurisdiction of Pembrokeshire County Council.
- 1.2.4 The historic environment appraisal was limited to the resources held in the regional HER, a site visit and on-line resources.
- 1.2.5 Considering the potential size and nature of the proposed wind turbine a 5km radius search area was considered sufficient with which to evaluate visual effects on designated archaeological sites and elements of the historic environment (Scheduled Ancient Monuments, registered Historic Landscapes, registered Parks and Gardens). A 3km radius search area was used to establish visual effects on listed buildings and a 1.5km radius search area was used to establish buried archaeological potential using information held on the Dyfed Historic Environment Record and the RCAHMW National Monuments Record.

1.3 Abbreviations

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 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	Prehistoric
Mesolithic –	c. 10,000 – 4400 BC	
Neolithic –	c.4400 – 2300 BC	
Bronze Age –	c.2300 – 700 BC	
Iron Age –	c.700 BC – AD 43	
Roman (Romano-British) Period –	AD 43 – c. AD 410	Historic
Post-Roman / Early Medieval Period –	c. AD 410 – AD 1086	
Medieval Period –	1086 – 1536	
Post-Medieval Period ¹ –	1536 – 1750	
Industrial Period –	1750 – 1899	
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. LOCATION AND TOPOGRAPHY

- 2.1 The location of the proposed wind turbine lies on a hill with a slight southwest facing slope, and lies c.3.3km southwest of Fishguard and 6km northeast of Mathry in Pembrokeshire. The proposed wind turbine is located within a field lying c.700m east of Hendrewen Farm.
- 2.2 The proposed turbine lies between 80 and 85m OD. The proposed turbine will be located at NGR SM 93310 34658 (Figure 1).
- 2.3 The proposed development site is currently under pasture.

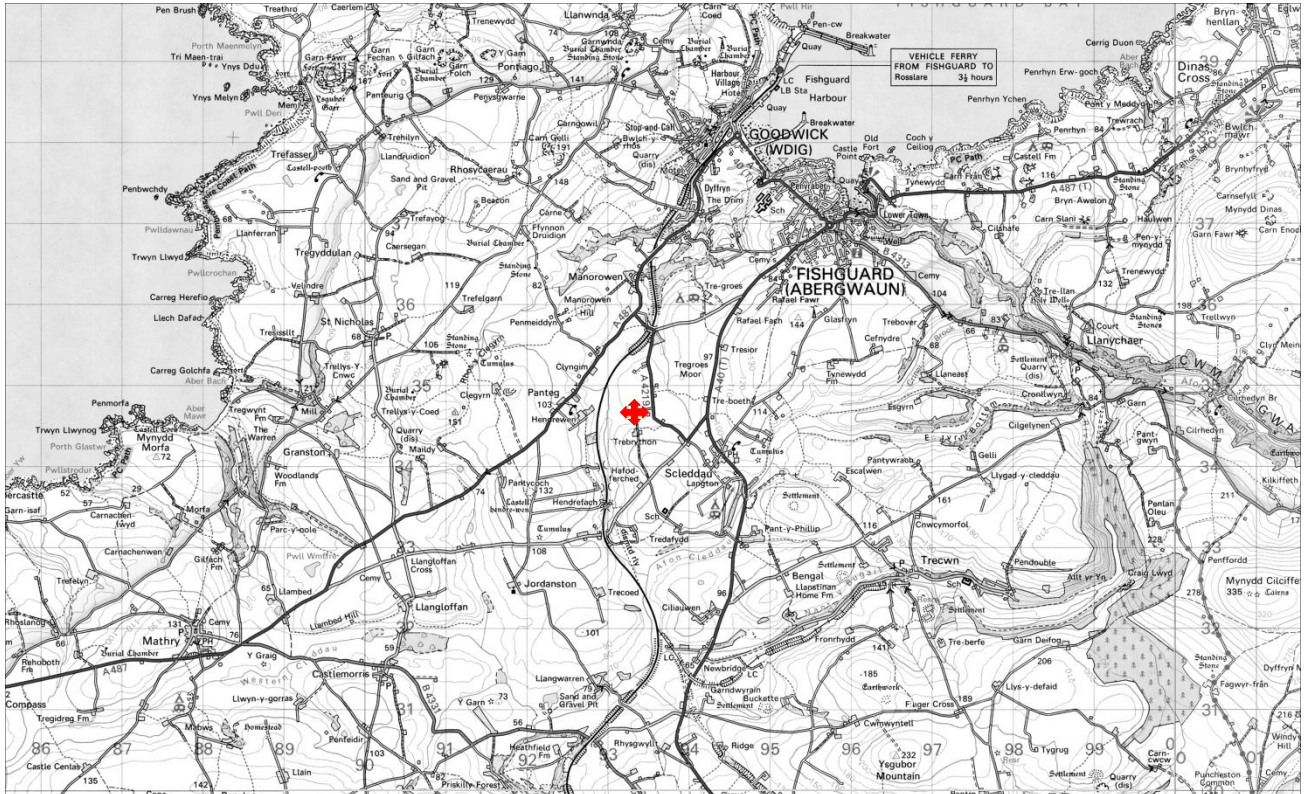


Figure 1: Location map based on the Ordnance Survey. Proposed turbine location marked in red.

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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 5km radius centred on the proposed wind turbine location. Grade I, II and II* buildings within 3km were identified. The potential visual effect of the proposed wind turbine on the settings of the designated sites within this area was then considered.
- 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 detailed site visit was undertaken on the 4th June, 2015. The visit comprised a walkover of the proposed wind turbine site and the surrounding area and also incorporated looking at the wider area for views looking back to the turbine location from designated and other sites. 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 wind turbine does not lie within the boundaries of any Historic Landscape Categorisation Area recorded on the Register of Landscapes of Outstanding Historic Interest in Wales (Cadw 1998). The nearest is that of Pen Gaer: Garn Fawr and Strumble Head which lies approximately 4km to the north (HLC 43).
- 4.1.2 No Conservation Areas lie within a 5km radius of the proposed wind turbine sites.
- 4.1.3 Three registered Parks lie within a 5km radius of the proposed wind turbine site; Manorowen lies 1.6km to the north, Fishguard Bay Hotel lies 4.2km to the north and Plas Glyn-y-Mel lies 3.9km to the northeast. Table 2 summarises the information held on these registered parks.

Site Name	NGR	Site Type
Manorowen	SM 934 363	Walled & compartmented garden with gazebo. Late seventeenth century; late eighteenth century; about 1830.
Fishguard Bay Hotel	SM 948 387	Informal terraced & wooded gardens, including former orchard, kitchen garden & tennis court. 1894-1906.
Plas Glyn-y-Mel	SM 9663 3697	Picturesque garden incorporating contrived cliff face with walks, small terraces & lawns. About 1799-1805.

Table 2: Summary of Registered Parks and Gardens within 5km

4.2 Scheduled Ancient Monuments

- 4.2.1 There are 19 Scheduled Ancient Monuments within a 5km radius of the proposed wind turbine sites. A summary of the information held on these in the Dyfed HER can be seen in Table 3 and Figure 2 illustrates their distribution around the wind turbine.
- 4.2.2 The majority of Scheduled Ancient Monuments within 5km of the proposed turbine date from the Prehistoric period associated with chambered tombs, standing stones and enclosures. Medieval monuments include Castle Point Old Fort (PE096) and two inscribed stones (PE258 & PE145).
- 4.2.3 The nearest Scheduled Ancient Monuments include Castell Hendre enclosure (PE081) and the Round Barrow atop of Jordanston Hill (PE082). The Round Barrow exists as a low lying earth work that is not possible to discern from the location of the proposed turbine, but does have general views back to the general area of the wind turbine site. Castell Hendre enclosure sits on a south facing slopes so cannot not seen from the turbine site.

SAM Ref No.	Site Name	NGR	Period	Distance to turbine
PE030	Garn Wen Burial Chambers; Chambered tomb	SM948390	Prehistoric	4.6km SW
PE096	Castle Point Old Fort	SM961378	Post-Medieval/ Modern	4.2km SW
PE033	Pen-Rhiw Burial Chamber	SM942390	Prehistoric	4.5km SSW
PE031	Carn Wnda Burial Chamber	SM933392	Prehistoric	4.5km S
PE259	Ffynnon- Druidion Standing Stone	SM921365	Prehistoric	2.4km SE
PE080	Castell Poeth; enclosure	SM897377	Prehistoric	4.7km SE
PE258	Incised Cross at Cemetery Cross Roads	SM937392	Early Medieval	4.5km S
PE032	Garn Gilfach Burial Chamber	SM909389	Prehistoric	4.9km SSE
PE045	Rhos y Clegyrn Circle & Standing Stone	SM913354	Prehistoric	2.1km SE
PE044	Trefflys Burial Chamber	SM906349	Prehistoric	2.7km ESE
PE145	Inscribed Stone at Llangwarran Farm	SM929314	Early Medieval	3.2km NNE
PE082	Round Barrow on Jordanston Hill	SM922331	Prehistoric	1.8km NE
PE081	Castell Hendre-Wen; enclosure	SM921337	Prehistoric	1.5km NE
PE231	Bucket Camp; enclosure	SM950310	Prehistoric	4.6km S
PE141	Castell Cwm-Wyntyll; enclosure	SM964311	Prehistoric	4.6km NW
PE139	Caer Penbicas; enclosure	SM959327	Prehistoric	3.2km NE
PE138	Castell Pant-y-Phillip; enclosure	SM952335	Prehistoric	2.2km NE
PE518	Parc Hen Standing Stone	SM932390	Prehistoric	4.3km S
PE140	Waun-Castell Camp; promontory fort - inland	SM971322	Prehistoric	4.4km NE

Table 3: Scheduled Ancient Monuments within 5km of the proposed wind turbine
(Figure 2)

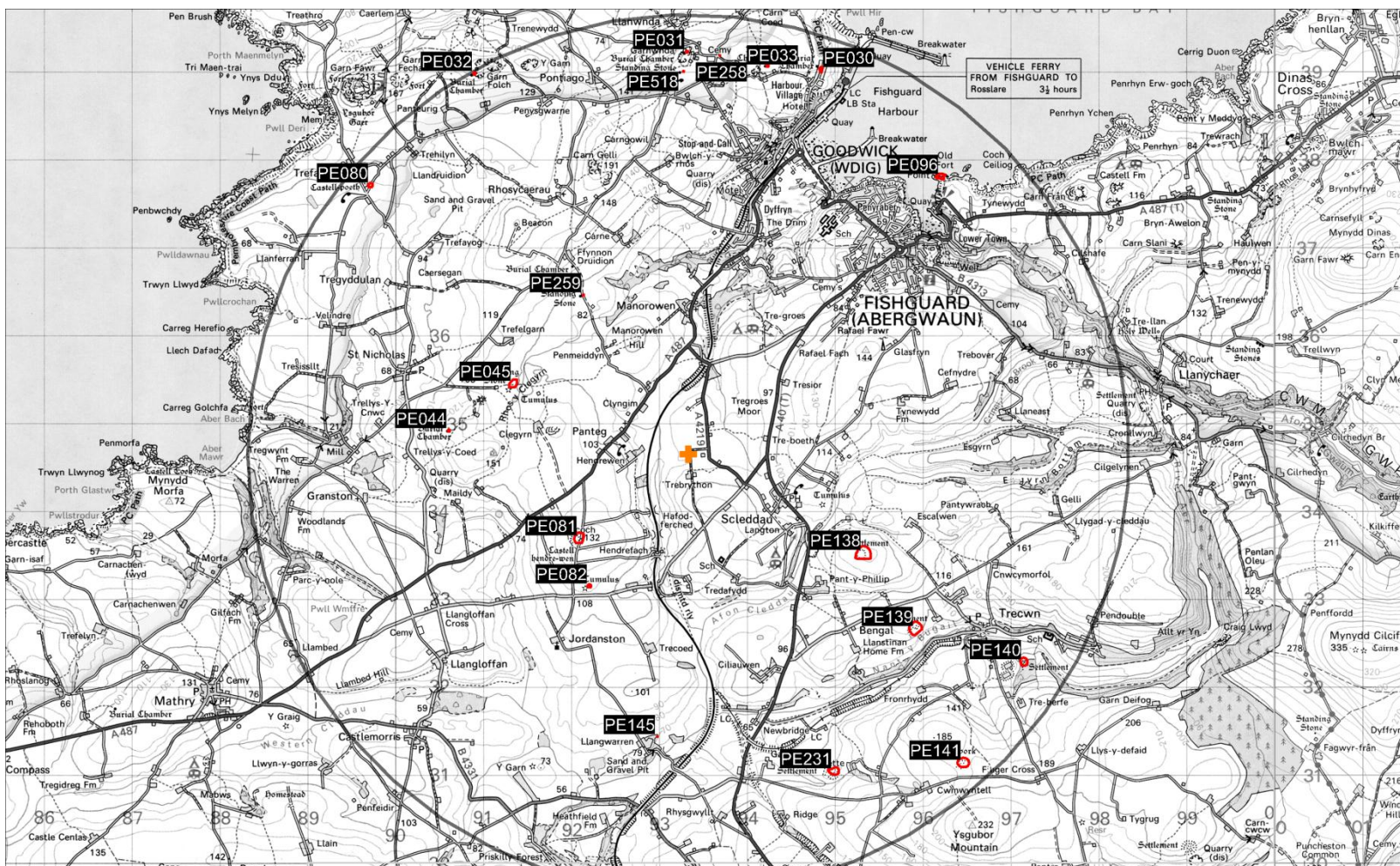


Figure 2: Map showing Scheduled Ancient Monuments within 5km of the proposed wind turbine location (Table 3)

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4.3 Listed Buildings

- 4.3.1 There are no grade I listed buildings, but there is one grade II* listed building within a 3km radius of the proposed wind turbine site. In addition there are 26 grade II listed buildings also within 3km of the site. Table 4 and Figure 3 list and show all of these listed buildings.
- 4.3.2 The closest of these to the site is the grade II Capel Sion (15914) located in Scleddau. The chapel sits on low lying ground surrounded by existing development and the turbine will not be visible from it.
- 4.3.3 There are a number of additional Listed Buildings located in Fishguard that have not been included in this search. They lie approximately 3km from the site and the natural topography is considered to prevent any intervisibility with the proposed wind turbine.
- 4.3.4 A cluster of grade II Listed Buildings can be found approximately 1.5km away in Manorowen (13029, 15201, 15202, 15204 and 15205). These are post medieval buildings which include St Marys Church and farm buildings.

Number	Name	Grade	NGR
12287	Llys Mair	II	SM 195442 236797
12298	Maesgwynne	II	SM 195072 236626
13029	Manorowen	II	SM 193324 236365
13049	Llanstinian Bridge,(Partly In Trecwn) Scleddau	II	SM 194502 233180
15194	Capel Sion, Scleddau	II	SM 194361 234051
15195	Jordanston Hall, Jordanston	II	SM 191809 232532
15197	St Cwrda's Church, Jordonston	II	SM 191870 232520
15199	Walled Garden At Manorowen	II	SM 193458 236380
15200	Gazebo In Walled Garden At Manorowen	II	SM 193466 236396
15201	Home Farm Buildings, Manorowen North Range	II	SM 193364 236299
15202	Home Farm Buildings, Manorowen East Range	II	SM 193379 236282
15203	Home Farm Buildings, Manorowen South Range	II	SM 193368 236259
15204	Home Farm Buildings, Manorowen West Range	II	SM 193352 236274
15205	St Mary's Church	II	SM 193430 236315
15206	Tre-Llewelyn, Manorowen	II	SM 193390 236708
20818	Church Of St Justinian	II*	SM 195328 233898
26052	Un-named	II	SM 195461 236761
26070	Range of outbuildings at Maesgwynne	II	SM 195087 236644
26071	Cartshed at Maesgwynne	II	SM 195092 236631
26077	Un-named	II	SM 195473 236775
26717	Ciliauwen	II	SM 194181 232115
26718	Range NW side of farmyard at Ciliauwen	II	SM 194179 232158
26719	Outbuilding SE side of farmyard at Ciliauwen	II	SM 194227 232140
26720	Ciliauwen Lodge	II	SM 194389 232204
26721	Gatepiers, walls and gates at Ciliauwen Lodge	II	SM 194393 232194
26791	The Drim	II	SM 194345 237197
26792	Outbuilding at The Drim	II	SM 194310 237186

Table 4: Listed buildings within 3km of the proposed wind turbine site (Figure 3)

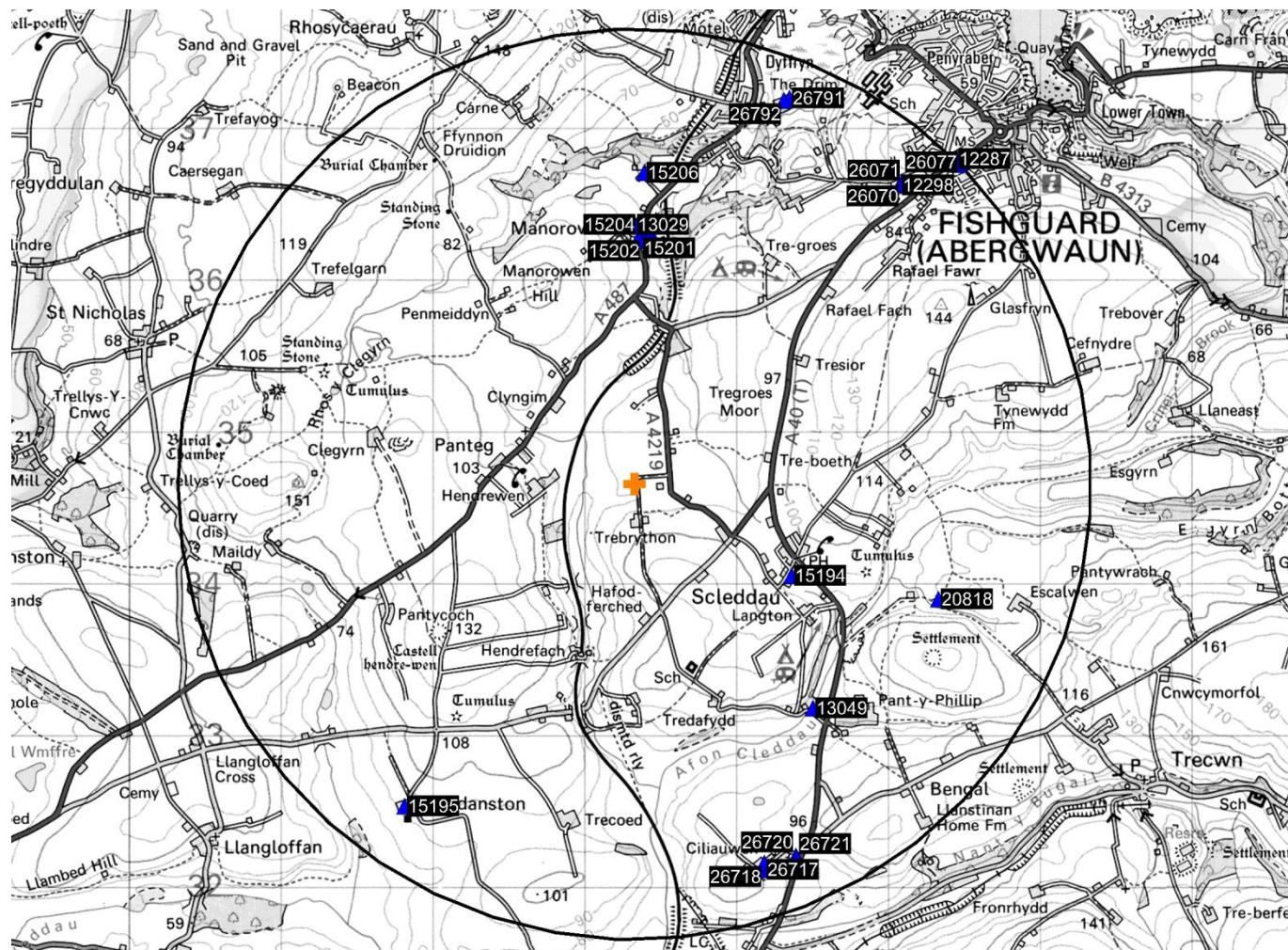


Figure 3: Map showing listed buildings within 3km of proposed wind turbine (Table 4)

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4.4 Known Archaeological Remains

4.4.1 Table 4 lists the designated and non-designated archaeological and historic assets that are recorded in the Regional HER and the NMR within a 1.5km radius of the proposed wind turbine site. The Regional HER records 26 sites of archaeological interest, two of which are also recorded in the NMR. The NMR also records an additional two sites. The distribution of these sites is recorded in Figure 4.

PRN	Name	Period	Summary	NGR
2515	Brwynant Stones	Bronze Age; Post-Medieval	An erect stone in a field to the northeast of Brwynant farmhouse said by the Ordnance Survey in 1966 to be a rubbing stone, not an antiquity. The farmer at Home Farm, Manorowen says that as far as he knows the stone is no longer there. RSR 2004.	SM93003559
2521	Brwynant Stones	Bronze Age; Post-Medieval	The Ordnance Survey recorded the former presence of an erect stone at this location which they describe as a rubbing stone which has been destroyed. RSR 2004.	SM931358
4589	Penmeiddin Alignment	Bronze Age	The row of "four upright stones" referred to at this location by the Royal Commission in 1921 no longer exists. At the given grid reference there is now only one large boulder, circa 2m x 2m and 0.7m high, which lies on the ground surface amongst grass and reeds. In the pasture fields to the west there are many boulders, probably glacial erratics, some of which have been cleared into linear arrangements. RSR 2004.	SM9241535584
5021	Parc Y Garreg	Bronze Age	A "Garreg" place-name on the parish tithe map that may have indicated a standing stone existed here. RPS Trysor, August 2004	SM92823415
5026	Llain Yr Esgob	Medieval	Medieval Church land.	SM92893377
7865	Parc Maen Llwyd	Bronze Age	A "Maen" place-name on the parish tithe map that may have indicated a standing stone existed here. RPS Trysor, August 2004	SM925343
8507	Cnwc Sandy	Bronze Age	There is now no stone at the given grid reference. The stone may have been removed during the road enhancement scheme at the junction of the A4219 and A487 to make way for the new road. RSR 2004.	SM93403585
12100	Maenorowen Hill;Parc Y Domyn	Bronze Age	An apparent "Domen" place-name on the parish tithe map taken to indicate that a round barrow may have existed here. The term "domen" has however been commonly used on west Wales farms to describe a muck-heap and this may explain the name. RPS Trysor	SM927360
12313	Brywnant	Medieval	Medieval settlement	SM928354
17529 / 11191	Panteg Independent Chapel	Post-Medieval	Panteg Independent Chapel was built in 1865 in the Simple Round-Headed style of the gable entry type. By 1993 this chapel stood disused.	SM9264735004
17568	Hendre-Uchaf	Post-Medieval	No further information.	SM92423487
17569	Hendre-Wen	Post-Medieval	No further information.	SM92703460
17570	Hendreganol	Post-Medieval	No further information.	SM92803400
17571	Hendre-Fach	Post-Medieval	No further information.	SM92953355
17572	No name specified.	Post-Medieval	Rectory	SM92873328
17573	Pont Tre-Tefa	Post-Medieval	Bridge.	SM93053320
17581	Rhos-Felen	Post-Medieval	Black Smith workshop.	SM94003432
17582 / 11122	Sion	Post-Medieval	A small rural Baptist chapel built in 1859. Cadw 1995	SM9436134051
17583	Hafod-Ferched	Post-Medieval	Hafod place-name of unknown significance. RPS August 2001	SM93453378
17584	Tre-David	Post-Medieval	School.	SM93783340
18196	Cnwc Sandy	Post-Medieval	sand pit.	SM9335

46461	None given	Post-Medieval	A pond and sluice marked on the Ordnance Survey 1st edition 1:10560 map (Pembrokeshire sheet IX.NE) of 1891. It was shown but not labelled on the 2nd edition published in 1908.	SM9409235672
46464	None given	Post-Medieval	Old quarry marked on Ordnance Survey 1st edition 1:10560 map (Pembrokeshire sheet IX.NE) of 1891, but no longer shown by the time the 2nd edition map was published in 1908.	SM9455335333
46465	None given	Post-Medieval	Milestone. Inscription reads, "Fishguard 2 miles 170 yards - Haverfordwest 12 miles".	SM94473414
46468	None given	Prehistoric	Stone marked on Ordnance Survey 2nd edition map (Pembrokeshire sheet IX.SE) of 1908. A possible prehistoric standing stone.	SM94413380
47072	None given	Post-Medieval	Deserted rural settlement.	SM93833511
48329	Home Farm	Modern	An erect stone 1.65m high x 0.70m x 0.25m centrally located in a pasture field. There is no previous record or map evidence for this stone which is probably a rubbing stone for cattle. RSR 2004.	SM9325436026
107993	Scleddau Gate	Post-Medieval	Marked Scleddau Gate T.P. on the OS 1st edition 1889	SM9450034330
409549	<i>Langton Hall</i>	<i>Post-Medieval</i>	<i>Langton Hall, Scleddau, is a large, 2-storey house, now in use as a nursing home.</i>	SM9450533775
265226	<i>Langton Garden, Scleddau</i>	<i>Post-Medieval</i>	<i>This garden is depicted on the Second Edition Ordnance Survey 25-inch map of Pembrokeshire IX, sheet 11 (1907). Its main elements on that map include carriage drive, a possible walled garden, well, orchard and lawns.</i>	SM9448333760

Table 5: HER and NMR sites within 1.5km of the proposed wind turbine (*NMR information in italics*) (figure 4).

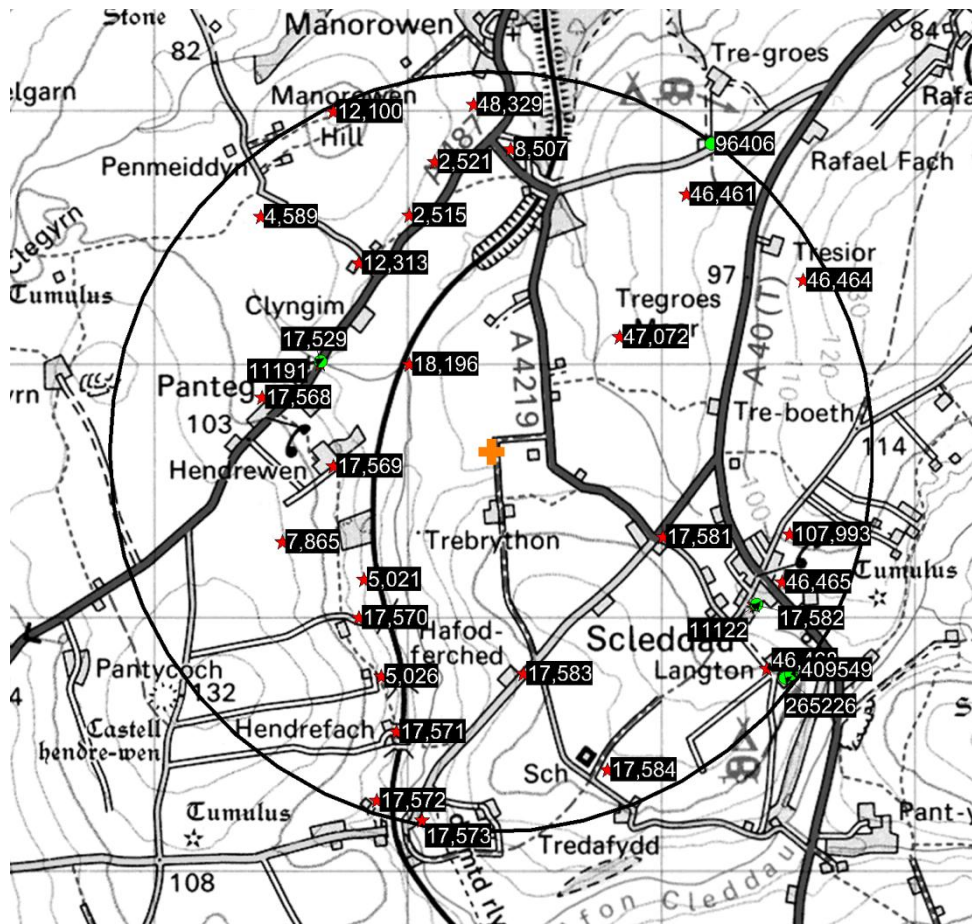


Figure 4: Map showing distribution of archaeological sites recorded on the Historic Environment Record (red) and National Monuments Record (green) within 1.5km of the proposed wind turbine site (Table 4)

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- 4.4.2 No known historic archaeological sites lie within the immediate vicinity of the proposed turbine location.
- 4.4.3 Evidence of Prehistoric activity appears to exist in the form of Bronze Age standing stones, the nearest of which supposedly 0.9km north of the site. However, it has been suggested that none of these are longer *in-situ*.
- 4.4.4 A number of sites associated with medieval activity are located within 600m but the evidence for most of these is based on place names. However, a Black smiths work shop, toll house and chapel are located within 1.2km to the south of the proposed turbine site. These are of post-medieval date and associated with later development of the area to the south of the proposed wind turbine.

4.5 Historic Mapping

- 4.5.1 The 1st and 2nd edition Ordnance Survey maps of 1889 and 1907 (Figures 5 and 6 retrospectively) show the proposed location for the wind turbine. The site is shown to lie within the same agricultural field as today, with no apparent change in the field boundaries.
- 4.5.2 There is little change to the layout of fields between 1889 and 1907 and very little in the way of change between 1907 and present day. The field within which the turbine is to be located is shown as marshy or scrubland to the north and south on both maps, but this has been better defined by the 1907 map (Figure 6).

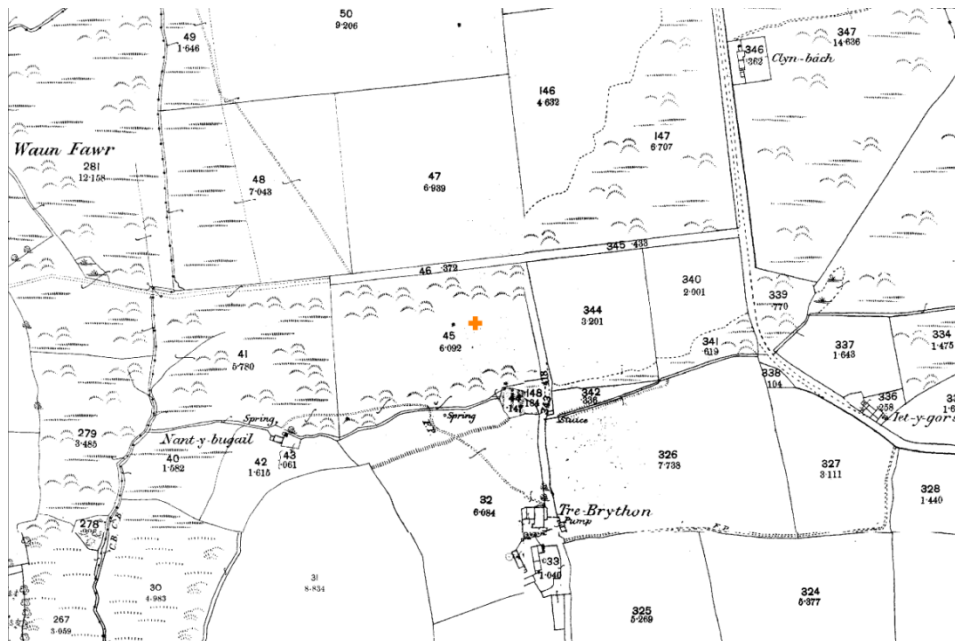


Figure 5: Extract of 1st edition OS map of 1889 showing the location of the proposed wind turbine (orange cross)

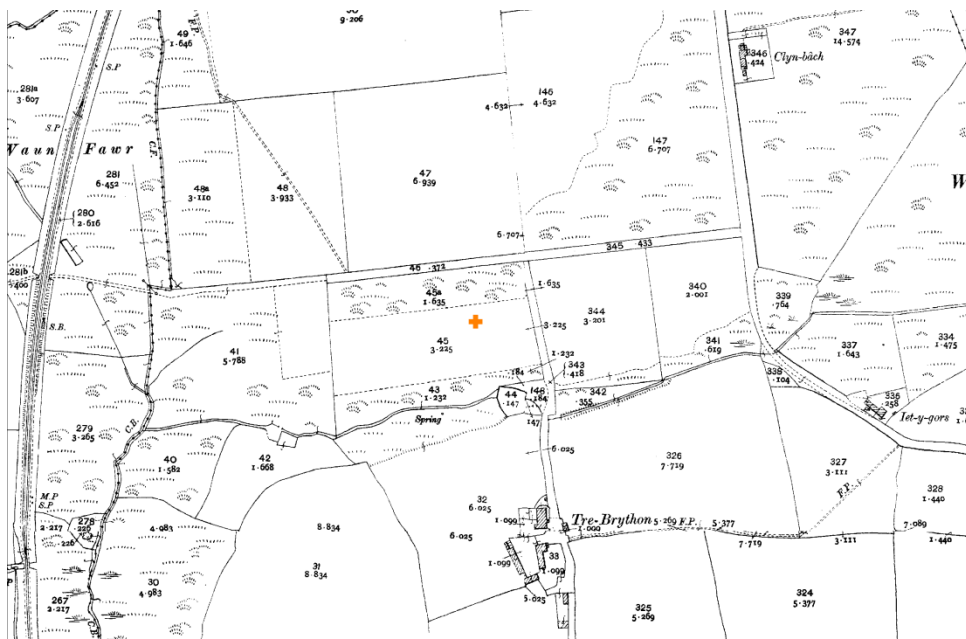


Figure 6: Extract of 2nd edition OS map of 1907 showing location of proposed wind turbine (orange cross)

4.6 Site Walkover Survey

- 4.6.1 During the site visit the weather was clear and good views were available all around. Photographs were taken from the location of the proposed wind turbine in all directions (Photos 1 – 5). The majority of the views show little of interest and distant views are either obscured by natural topography or buildings (e.g. Photo 3). None of the registered parks or gardens could be seen. To the east, approximately 0.5km away an existing wind turbine is visible, this appears to be of similar design as the one proposed here.
- 4.6.2 In general the area appears to be characterised by enclosed fields of varying sizes, their boundaries consisting of tall hedgerows blocking most ground level views. Farmsteads are dispersed throughout the area and some nucleated settlements are situated nearby (Scleddau and Manorowen being the closest).
- 4.6.3 The proposed wind turbine location is in the center of a large field that gently slopes to the southwest. The field is relatively low lying sitting at 80 – 85m OD, particularly low in comparison to the adjacent field to the west which rises up to 115m to 125m OD. This obviously limits the available views to the west. To the south the hills behind Tre-Brython Farm rise rapidly to over 100m OD restricting views further south.
- 4.6.4 Looking north the land generally lowers gradually until it reaches the coast. Most settlements appear to be dispersed in the low lying areas and could not be seen from the proposed wind turbine location.
- 4.6.5 From the location of the wind turbine it was not possible to view any of the known historical assets within the wider area.



Photo 1: View north from turbine location.



Photo 2: View east from turbine location with ground level views already obscured by a large workshop and yard.



Photo 3: View south from turbine location towards Tre-Brython farm



Photo 4: View south west from turbine location in general direction of SAM PE082 (not discernable).



Photo 5: View west from turbine location looking towards Hendrewen Farm.

- 4.6.6 No new archaeological sites were identified during the course of the site visit within the field of the proposed turbine.
- 4.6.7 The Round Barrow on Jordanston Hill (PE082) was visited. The Round Barrow now exists as a low lying earth work approximately 1.8km away from the location of the proposed wind turbine. Most of the ground level views from the Round Barrow are obscured by tall hedge banks but it may be possible to see the tip of the proposed turbine. However, it is worth mentioning that it is already possible to see the tips of a nearby turbine to the north.
- 4.6.8 The enclosure (PE081) located at NGR SM921337 was also visited but it was found to be sitting on west facing slopes and therefore no views of the area of the wind turbine could be seen.
- 4.6.9 The small settlement of Manorowen was visited because it contains a number of Grade II Listed Buildings (13029/15204/15202/15201). The views from Manorowen back towards the proposed wind turbine location are restricted because it sits in a low lying area and much of the views towards the south are obscured by high hedge banks and localized stands of small trees.
- 4.6.10 The Grade II Listed chapel (15194) in Scheddau was visited but the chapel sits in a well-developed area surrounded by modern buildings, its views towards the proposed wind turbine location have already been blocked.
- 4.6.11 SAM PE138 lies approximately 2.2km south west of the proposed wind turbine site. It was not possible to visit this site during the survey, but its high vantage point would suggest it would have views of the general area of the proposed wind turbine. However, it should be noted that from this point it will be possible to see a number of other existing turbines which are scattered across the landscape. SAMS PE139 and PE140 lie over 3km from the proposed turbine site, and at this distance and considering the height of the turbine it is considered that there will be no significant impact on their settings.

5. IMPACT OF PROPOSED TURBINES 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 The turbine will be located on a gentle west facing slope, although no known archaeological sites lie in the immediate area the presence of Bronze Age activity on adjacent hills suggests that there is a small chance that Prehistoric activity may be present.

5.3 Palaeo-environmental Potential

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

5.4 Visual Impacts

- 5.4.1 The nearest Historic Landscape to the proposed development is that of Pen Gaer and Stumble Head which lies approximately 4km to the north. Over such a distance it is not considered that there will be any significant impacts on the setting of the HLC caused by the proposals.
- 5.4.2 The scheduled Ancient Monument on Jordanston Hill (PE082) is only 1.8km south east of the turbine site. The turbine site will be visible from this position, which lies on lower ground. However, there is already a modern wind turbine in a relatively close position and the top of this can be clearly seen from the monument. It is considered that there will be minimal impact on the setting of this monument due to the small scale of the proposed turbine.
- 5.4.3 The impact on the settings of other Scheduled Ancient Monuments potentially inter-visible with the turbine includes Castell Pant-Y-Phillip (PE138), this lies on high ground which does overlook the general area of the turbine. However, at a distance of 2.2km and considering the overall size of the proposed turbine and presence of modern infrastructure in the area the impact is considered to be negligible.
- 5.4.4 It is considered that there will be no visual impact on the non-designated features recorded on the HER and NMR within 1.5km of the site.

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.

5.6 Summary of Impacts

- 5.6.1 It is concluded that there will be no physical impacts on any known archaeology within the development site. However, there is a potential that hitherto unrecorded Prehistoric remains could be found due to known activity in the wider area focused on hill tops.

- 5.6.2 The local topography prevents most of the historic assets in the vicinity from having their settings significantly impacted. The impact on the Round Barrow atop of Jordanston Hill (PE082) is considered minimal and the impact on all other designated and non-designated historical assets is considered to be negligible as the local topography inhibits inter-visibility.
- 5.6.3 It is considered possible that a watching brief may be required during groundworks associated with the construction of the turbine and associated infrastructure works.
- 5.6.4 The decision for any further programme of archaeological works lies with the Archaeological Advisor to the local Planning Authority.
- 5.6.5 It is not felt that any further detailed consideration of setting impacts on surrounding heritage features will be necessary for this single, small turbine. Some work on this may have already been completed as part of any landscape and visual study undertaken on the turbine as part of the planning application process.

6. SOURCES

Published

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

Database

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

Cartographic

Ordnance Survey	1880	<i>1:25000 1st edition Pembrokeshire</i>
Ordnance Survey	1906	<i>1:25000 2nd edition Pembrokeshire.</i>
Ordnance Survey	2003	1:50 000 Pembrokeshire.

**HENDREWEN TURBINE PROJECT, NR
FISHGUARD, PEMBROKESHIRE
HISTORIC ENVIRONMENT APPRAISAL
NGR SM 93310 34658**

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

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Mae'r adroddiad hwn wedi ei gael yn gywir a derbyn sêl bendith
This report has been checked and approved by

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Swydd / Position: **Head of DAT Archaeological Services**

Llofnod / Signature  Dyddiad / Date 18/06/15

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

