

# **PROPOSED WIND TURBINE AT LOCHMEYLER FARM, LLANDELOY, PEMBROKESHIRE**

## **HISTORIC ENVIRONMENT APPRAISAL NGR SM 85782 27380**



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



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Gan / By

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**PROPOSED WIND TURBINE AT LOCHMEYLER FARM, LLANDELOY,  
PEMBROKESHIRE:**

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**PROPOSED WIND TURBINE AT LOCHMEYLER FARM, LLANDELOY,  
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 Lochmeyler Farm, near Llandeloy 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.200m southeast of Lochmeyler Farm, c.600m north of Llandeloy village and c.1200m southwest of Llanreithan village. The wind turbine will be located at NGR SM 85782 27380.*

*There are twenty two Scheduled Ancient Monuments and three grade II\* listed buildings within 5km of the proposed wind turbine. There are four grade II listed buildings within 2km of the site. The nearest Historic Landscape to the proposed development is that of Treledydd-Tretio-Caerfarchell which lies around 3.3km to the west. 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 4<sup>th</sup> December 2014 in order to further assess the physical and visual impact of the development. It is concluded that there will be no physical impacts on any known archaeology within the development site. There is a slight probability that medieval and/or earlier remains could be found due to the presence of medieval settlement and Iron Age monuments in the vicinity. The presence of two similar turbines sited in the wider area, and the presence of Brawdy Airfield on a nearby hilltop, already sets a precedent for a modern impact on the setting of designated historic assets in this area. Most of these assets are also prevented from having their settings impacted upon by the turbine due to local topography and vegetation cover (tall hedges and localized stands of tall trees). The impact on Scheduled Ancient Monument Treffynnon/Llanreithan burial chamber (PE027) is considered to be low. The impact on all the other designated and non-designated historical assets is considered to be 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 Lochmeyler Farm, near Llandeloy 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.200m southeast of Lochmeyler Farm, c.600m north of Llandeloy village and c.1200m southwest of Llanreithan village. The wind turbine will be located at NGR SM 85782 27380. The proposal is for one Endurance E4660 85kW turbine, of 24m height to hub and 37m height to the tip of the blades.
- 1.1.3 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 as a 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 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, Grade I and II\* Listed Buildings). 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 <sup>1</sup> –	1536 – 1750	
Industrial Period –	1750 – 1899	
Modern –	20th century onwards	

**Table 1:** Archaeological and Historical Timeline for Wales

<sup>1</sup> 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 that gently slopes northwest-wards down to the River Solva, and lies c.6.2km northeast of Solva and 11km west-northwest of St David's in Pembrokeshire. The proposed wind turbine is located within a field lying c.200m southeast of Lochmeyler Farm, c.600m north of Llandeloy village and c.1200m southwest of Llanreithan village.
- 2.2 The proposed turbine lies between 100 and 110m OD. The proposed turbine will be located at NGR SM 85782 27380 (Figure 1).
- 2.3 The proposed development site is used for dairy farming and is currently under pasture.



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

Reproduced from the Ordnance Survey 1:50,000 scale Landranger Map with the permission of The Controller of Her Majesty's Stationery Office, © Crown Copyright Dyfed Archaeological Trust Ltd., The Shire Hall, Carmarthen Street, Llandeilo, Carmarthenshire SA19 6AF. Licence No 100020930



### **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 and II\* buildings within 5km were identified, and grade II listed buildings were considered within 2km of the site. 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 detailed site visit was undertaken on the 4<sup>th</sup> December 2014. 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 Treledydd-Tretio-Caerfarchell which lies around 3.3km to the west (HLC 288).
- 4.1.2 No Conservation Areas lie within a 5km radius of the proposed wind turbine sites.
- 4.1.3 No registered Parks or Garden lies within a 5km radius of the proposed wind turbine sites.

### 4.2 Scheduled Ancient Monuments

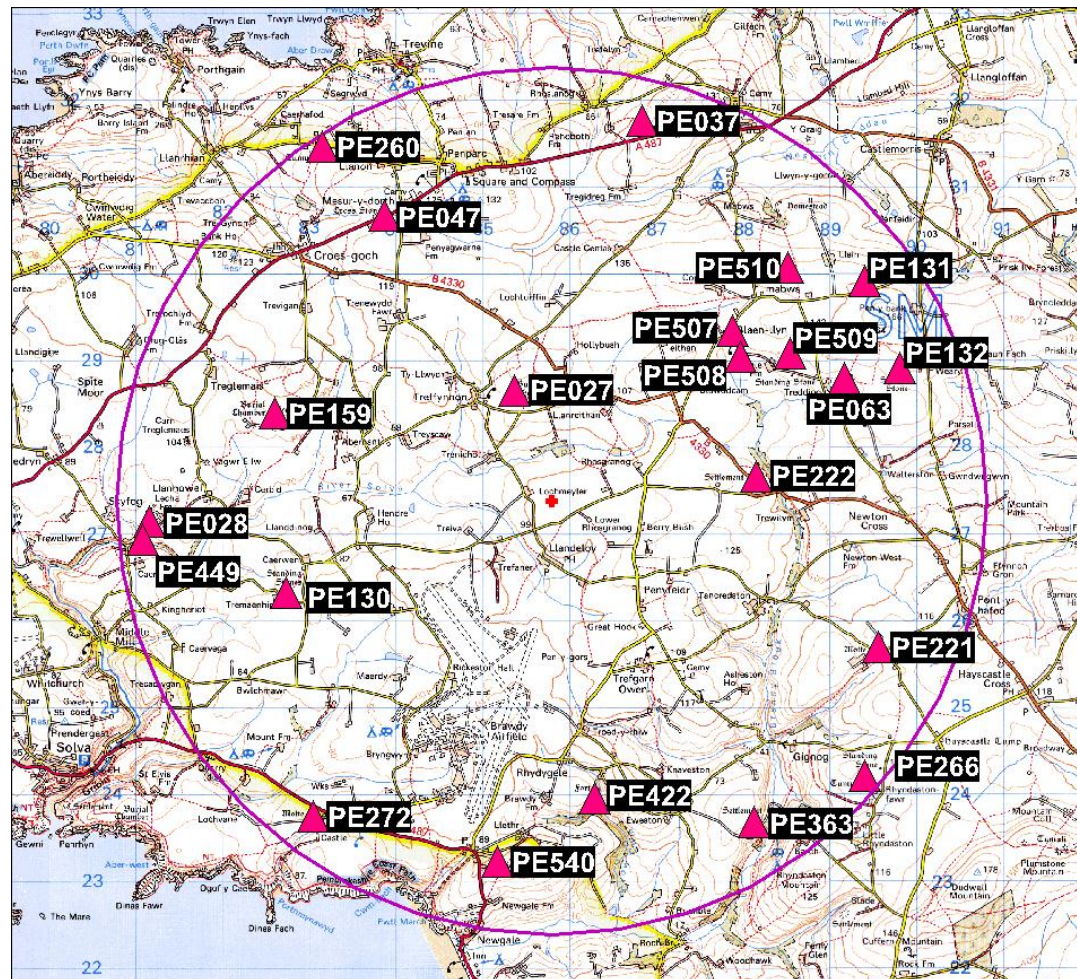
- 4.2.1 There are twenty two Scheduled Ancient Monuments within a 5km radius of the proposed wind turbine sites:

SAM Ref	Site Name	Period	NGR	Distance to turbines
PE027	Treffynnon/Llanreithan Burial Chamber	Neolithic	SM 85362 28671	1.35km S
PE028	Lecha Burial Chamber	Prehistoric	SM 81156 27126	4.62 E
PE037	Tre-Wallter Llwyd Burial Chamber	Prehistoric	SM 86826 31761	4.46km SSW
PE047	Mesur-y-Dorth Cross-Incised Stone	Early Medieval	SM 183846 30657	3.79km SE
PE063	Tre-Howell Burial Chamber	Prehistoric	SM 89148 28812	3.67km WSW
PE130	Tre-Maen Hir Standing Stones	Prehistoric	SM 82718 26330	3.28km ENE
PE131	Pen-Lan-Mebws-Uchaf Burial Chamber	Prehistoric	SM 89391 29931	4.41km WSW
PE132	Clyn-Ffwrn Burial Chamber	Prehistoric	SM 89791 28890	4.30km WSW
PE159	White House Burial Chamber	Prehistoric	SM 82580 28389	3.35km ESE
PE221	Castle Mound	Medieval	SM 89539 25688	4.16km WNW
PE222	Castle Villa Camp	Prehistoric	SM 88155 27666	2.39km W
PE260	Bickny Round Barrow	Prehistoric	SM 83134 31469	4.85km SE
PE266	Rhyndaston-Fawr Standing Stone	Prehistoric	SM 89589 24326	4.90km NW
PE272	Pointz Castle Mound	Medieval	SM 83029 23736	4.63km NE
PE363	Brandy Brook Camp	Prehistoric	SM 88126 23660	4.46km NW
PE422	Brawdy Promontory Fort	Prehistoric	SM 86276 23962	3.53km N
PE449	Moated Site 100m East of Caeforiog Bridge	Post-medieval/Modern	SM 81066 26907	4.72km E
PE507	Standing Stone 100m ENE of Blaen-llyn	Prehistoric	SM 87883 29330	2.85km SW
PE508	Standing Stone 270m NW of Trehale House	Prehistoric	SM 88158 29207	2.96km SW
PE509	Standing Stone 200m ENE of Trehale House	Prehistoric	SM 88536 29083	3.21km WSW
PE510	Standing Stone 400m NE of Pen-	Prehistoric	SM 88496 30072	3.79km SW

	Ian-Mabws			
PE540	Bay View Farm Defended Enclosure	Prehistoric	SM 85156 23208	4.35km NNE

**Table 2:** Scheduled Ancient Monuments within 5km of the proposed turbine site (figure 2).

- 4.2.2 Treffynnon/Llanreithan burial chamber (PE027) lies on land sloping south down to the River Solva. Three orthostats c.1.0m high define a rectangular chamber 2.4m by 1.5m. The partly displaced capstone is 2.0m by 1.6m and 0.9m thick. The chamber has been filled with field clearance stones. There is no trace of a mound or cairn, which may at one time have encased the monument.
- 4.2.3 The view is restricted by the local hillside on which the chamber is situated between 306 and 70 degrees. The rest of the view, however, is excellent, with Foel Cwmcerwyn at 87 degrees, Plumstone mountain at 132 degrees, all of Skomer Island and Ramsey Island highpoints, Carn Llidi at 269 degrees and Pen Beri at 276 degrees.
- 4.2.5 Castle Villa Camp (PE222) is a sub-circular, multivallate (3 banks) defended enclosure with close-set ramparts lying at 110m above sea level on a gentle northeast-facing slope. Internally the enclosure measures c. 45m across. The ramparts are substantial, but levelled on the east side. The outer bank is now masked by a hedge-bank.
- 4.2.7 PE507, PE508 and PE509 are prehistoric standing stones of 1.3m, 1.25m and 1.7m high respectively. They are within 800m of each other, approximately 2.9km northeast of the turbine site. None of these monuments are inter-visible with the turbine site due to intervening topography.
- 4.2.8 There are six other prehistoric burial chambers further away from the turbine site than Treffynnon/Llanreithan burial chamber (PE027). They are PE028, PE037, PE063, PE131, PE132 and PE159. PE159 (White House Burial Chamber) and PE063 (Tre-Howell Burial Chamber) have a lines of sight to the turbine site. PE063 (Tre-Howell Burial Chamber) is the very ruined remains of a possible burial chamber, comprising at least two large stones, located in a hedge on the south side of an arable field.
- 4.2.9 PE422 (Brawdy Promontary Fort) is the only other SAM within 5km of the turbine site that will have a view of the turbine unobstructed by topography.



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

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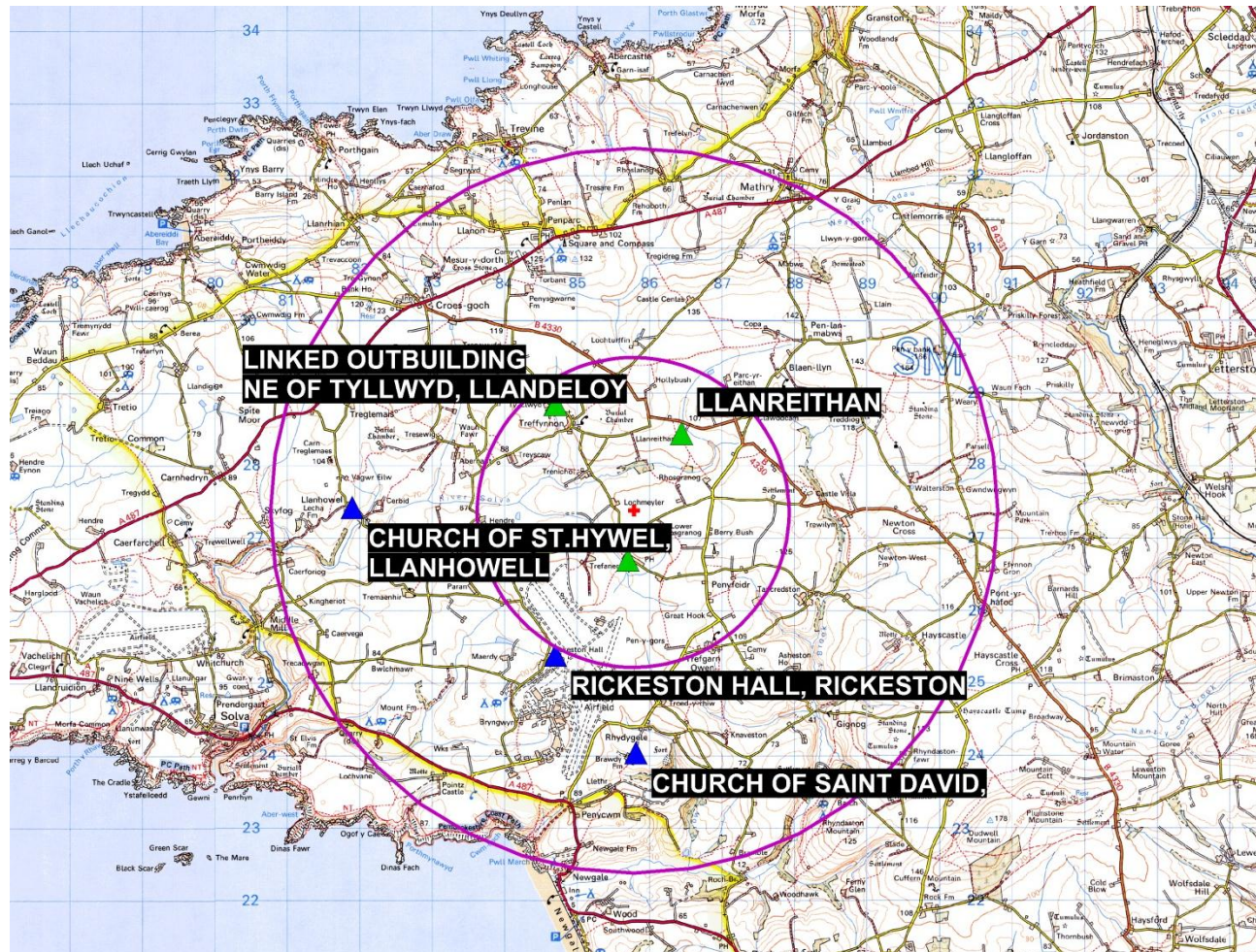
### 4.3 Listed Buildings

- 4.3.1 There are no grade I listed buildings, but three grade II\* listed buildings within a 5km radius of the proposed wind turbine site. There are four grade II listed buildings within 2km of the site. Table 3 and Figure 3 list and show all seven of these listed buildings.
- 4.3.2 The closest of these to the site is the grade II Llandeloy Parish church, 0.7km to the south. This church has origins in the medieval period. The church lies on low lying land and the turbine will not be visible.
- 4.3.3 The next closest is grade II listed building Llanreithan, a mansion dating from at least as far back as the 16<sup>th</sup> century. It lies 1.25km northeast of the turbine site, and as it lies on the other side of the brow of the hill the turbine is not visible from it.
- 4.3.4 Grade II listed buildings 14402 and 14403 are linked outbuildings northeast of Tyllwyd, 1.82km northwest of the proposed wind turbine. They are a pair of post-medieval coach houses.
- 4.3.5 Around 2.3km southwest of the proposed site is the grade II\* listed Rickeston Hall, which is a mansion dating back to at least the 16<sup>th</sup> century. Its grade II\* status is due to its unspoilt condition as a late Georgian gentry farmhouse with surviving outbuildings. Brawdy airfield lies directly to its northeast and obscures the line of sight to the proposed turbine.
- 4.3.6 Grade II\* listed building 'Church of St Hywel' is an Early Medieval C site. i.e. it has a low-probability of early medieval origins. The medieval Llanhywel parish church occupies a rectangular/square churchyard, which was held under native systems of multiple patronage in the 13th century. The turbine site is in view of this church.
- 4.3.7 The third grade II\* listed building is the Church of St David, Brawdy. A hill lies in the line of site from the church to the turbine.

Listed Building No.	Grade	Site name / location	Distance to turbines	NGR
13077	II*	Rickeston Hall, Rickeston	2.29km NE	SM 84698 25387
12423	II*	Church of St. Hywel, Llanhowell	3.87km E	SM 81894 27427
14396	II*	Church of Saint David	3.39km N	SM 85804 24040
14397	II	Llandeloy Parish Church; St Teilo's	0.7km N	SM 85696 26697
14402	II	Linked outbuildings, NE of Tyllwyd, Llandeloy	1.82km SE	SM 84690 28850
14403	II	Linked outbuildings, NE of Tyllwyd, Llandeloy	1.82km SE	SM 84702 28848
14404	II	Llanreithan mansion	1.25km SE	SM 86438 28446

**Table 3:** Grade II\* listed buildings within 5km, and grade II listed buildings within 2km of proposed wind turbine site (Figure 3)





**Figure 3:** Map showing Grade II\* listed buildings within 5km, and grade II listed buildings within 2km of proposed wind turbine (Table 3)

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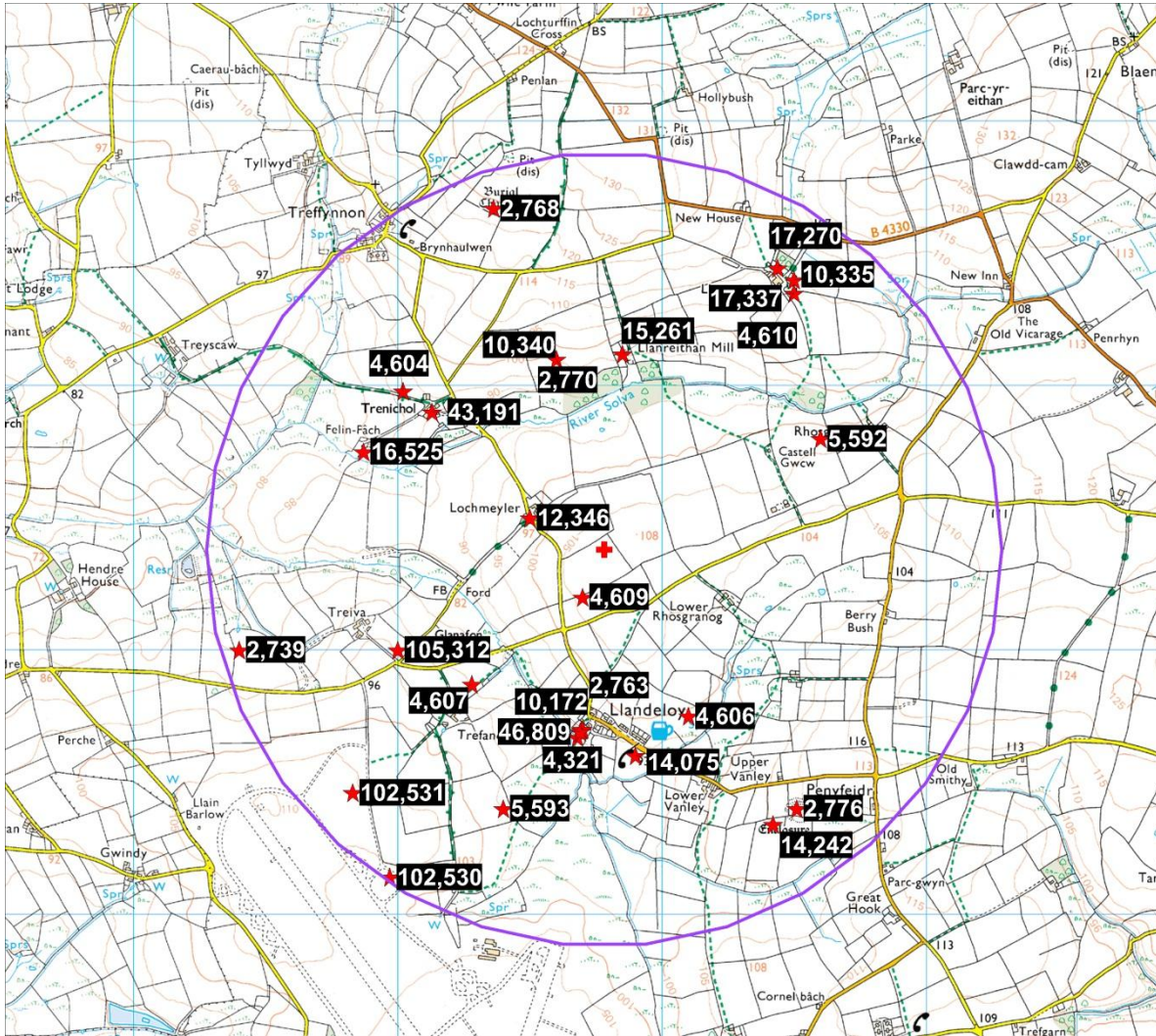
#### 4.4 Known Archaeological Remains

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 twenty four sites of archaeological interest, six of which are also recorded in the NMR. The distribution of these sites is recorded in Figure 4.

PRN/ NPRN	Site name	Summary from HER and NMR	Period	NGR	Distance to turbines
2739	Ffynnon wen spring	Possible previous holy well, now marsh	Medieval	SM 844270	1.4km ENE
2763 /102740	Llandeloy parish church; St Teilo's	Church. Grade II Listed building 14397	Medieval; Post-medieval	SM 85696 26697	0.7m N
46809	Llandeloy parish church; St Teilo's	D-shaped Churchyard	Early- medieval	SM 85696 26697	0.7m N
4321	Llandeloy churchyard well	A field visit in 1966 reported a sub-rectangular well retained with stone slabs that rise 0.8 meters from water-level to upper ground level. The water is used for domestic purposes	Medieval	SM 85696 26697	0.7m N
2768 /305301	Treffynnon; Llanreithan	Burial Chamber. On land sloping south down to the River Solva. The view is restricted by the local hillside on which the chamber is situated between 306 and 70 degrees. The rest of the view, however, is excellent, with Foel Cwmcerwyn at 87 degrees, Plumstone mountain at 132 degrees, all of Skomer Island and Ramsey Island highpoints, Carn Llidi at 269 degrees and Pen Beri at 276 degrees. Three orthostats c.1.0m high define a rectangular chamber 2.4m by 1.5m. The partly displaced capstone is 2.0m by 1.6m and 0.9m thick. The chamber has been filled with field clearance stones. There is no trace of a mound or cairn.	Neolithic	SM 85362 28671	1.35km S
2770	Ffynnon Samson	Holy well by place name evidence.	Medieval	SM 856 281	0.8km SSW
2776 /305303	Vanley enclosure	Defended Enclosure. Sub-circular. Plough levelled; slight ditch and bank visible in places	Iron Age	SM86512640	1.2kmNW
14242	Vanley	Aerial photographs show the crop-marked ditch of a	Iron Age	SM 8642 2634	1.2km NW

/402420		circular enclosure. Low earthwork bank. Just SW of 2776.			
4604	Parc Y Garreg	Place name on tithe map – standing stone	Bronze Age	SM 8610 2675	1km SE
4606	Parc Y Garreg	Place name on tithe map – standing stone	Bronze Age	SM 8502 2798	1km SE
4607	Parc Maen	Place name on tithe map – standing stone	Bronze Age	SM 8528 2687	0.7km NE
4609	Parc Yr Eglwys	Church land	Medieval; Post-medieval	SM 857 272	0.2km NNE
4610 /302139	Llanrheithan parish church; St Rheithan's	Church. Square churchyard. Dedicated to the 'Celtic' St Rheithan. Same as 17337	Medieval	SM 86438 28446	1.25km SE
5592	Parc Castell	Earthwork and place name evidence.	Unknown	SM 866 278	0.9km SW
5593	Bryn Merched	Pond	Post-medieval	SM 854 264	1km N
12346	Lochmeyler	Settlement	Medieval	SM 855 275	0.3km ESE
14075	Moelfryn	Common Land	Medieval	SM 859 266	0.8km N
15261	Melin-Llanreithan	Mill	Post-medieval	SM 8585 2812	0.8km S
16525	Felin-fach	Mill	Post-medieval	SM 8487 2775	1km ESE
17270 /302138	Llanreithan	Mansion. Grade II Listed Building 14404	Post-medieval	SM 86438 28446	1.25km SE
43191	Trenichol farm	Outbuilding. Farmstead complex shown on parish tithe map.	Post-medieval	SM 8513 2790	0.8km SE
102530	RAF Brawdy / RNAS Brawdy	Electrical substation	Modern	SM 8497 2614	1.5kmNNE
102531	RAF Brawdy / RNAS Brawdy	Bomb store	Modern	SM 8483 2646	1.3km NE
105312	Hawker Hunter	Air crash site. PROTECTED PLACE	Modern	SM 85 27	0.9kmENE

**Table 4:** HER and NMR sites within 1.5km of the proposed wind turbine (NMR data 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)

Reproduced from the Ordnance Survey 1:25,000 scale Landranger Map with the permission of The Controller of Her Majesty's Stationery Office, © Crown Copyright Dyfed Archaeological Trust Ltd., The Shire Hall, Carmarthen Street, Llandeilo, Carmarthenshire SA19 6AF. Licence No 100020930

- 4.4.2 Two historic archaeological sites lie in fields adjacent to the proposed wind turbine site: Lochmeyler lies 0.2km WNW and Parc yr Eglwys is 0.2km SSW. There is documentary evidence for medieval settlement at Lochmeyler, although this has not been archaeologically investigated and no remains have been reported, above or below ground. Parc yr Eglwys is believed, from documentary evidence, to have formerly been church land during the medieval and post-medieval period. There is a low potential for the discovery of buried remains associated with the medieval activity described above within the proposed turbine location.
- 4.4.3 Two Iron Age enclosures lie 1.2km southeast of the proposed development, on another southwest facing spur of the same hill as the proposed wind turbine and at a similar altitude. There is a low potential that the buried remains of Iron Age settlement may be present at the site of the wind turbine because it is similarly situated.

4.4.4 The churchyard at Llandeloy, 0.7km south of the development site, is recorded as possibly having early medieval origins, which suggests the possibility of a continuity of settlement on the side of this south-facing hill overlooking the River Solva from the Iron Age through to the medieval period.

4.4.5 Other archaeological sites recorded within the 1.5km radius of the search are the sites of holy wells and springs dating back to at least medieval times, and sites of Post-medieval and Modern date associated with settlement, agriculture and industry. A few of the sites correspond to listed buildings discussed above.

#### 4.5 Other archaeological finds

4.5.1 Table 5 lists three finds recorded by the Portable Antiquities Scheme within a 1.5km radius of the proposed wind turbine sites. These are chance finds and not associated with any historic archaeological sites yet recorded in the Regional HER or the NMR.

4.5.2 These three finds were all discovered in the vicinity of Llanreithan Mansion, approximately 1.25km to the NE of the development, on the other side of the River Solva. Two of the finds indicate possible Roman trade or presence in the area, but have no particular consideration in terms of the proposed development.

ID	FIND TYPE	DESCRIPTION	NGR	Distance to turbines
364958	Roman Coin	A Sestertius of Trajan (114-117). Reverse: ARMENIA ET MESOPOTAMIA IN POTESTATEM P R REDACTAE SC. Reference: RIC II Trajan 642. This data is sourced from the corpus of work produced by Peter Guest and Nick Wells, entitled "Iron Age and Roman coins of Wales.	SM 86400 28400	1.22km SW
445531	Roman Coin	Roman copper alloy coin. A worn and corroded dupondius, probably of Trajan (AD 98-117) or perhaps an early issue of Hadrian (AD 117-38); struck at Rome.	SM 866 284	1.35km SW
448501	Medieval Mount	Medieval copper alloy belt or strap mount of 13th or 14th century date. The mount is incomplete, missing one of the pins (with a length of 29.5mm, an overall depth of 5.5mm and a weight of 2.1g). The mount is triangular (26.1mm x 16.2mm and 1.5mm thick).	SM 8655 2845	1.33km SW

**Table 5:** Portable Antiquities Scheme finds within 1.5km of the proposed wind turbine



## 4.6 Historic Mapping

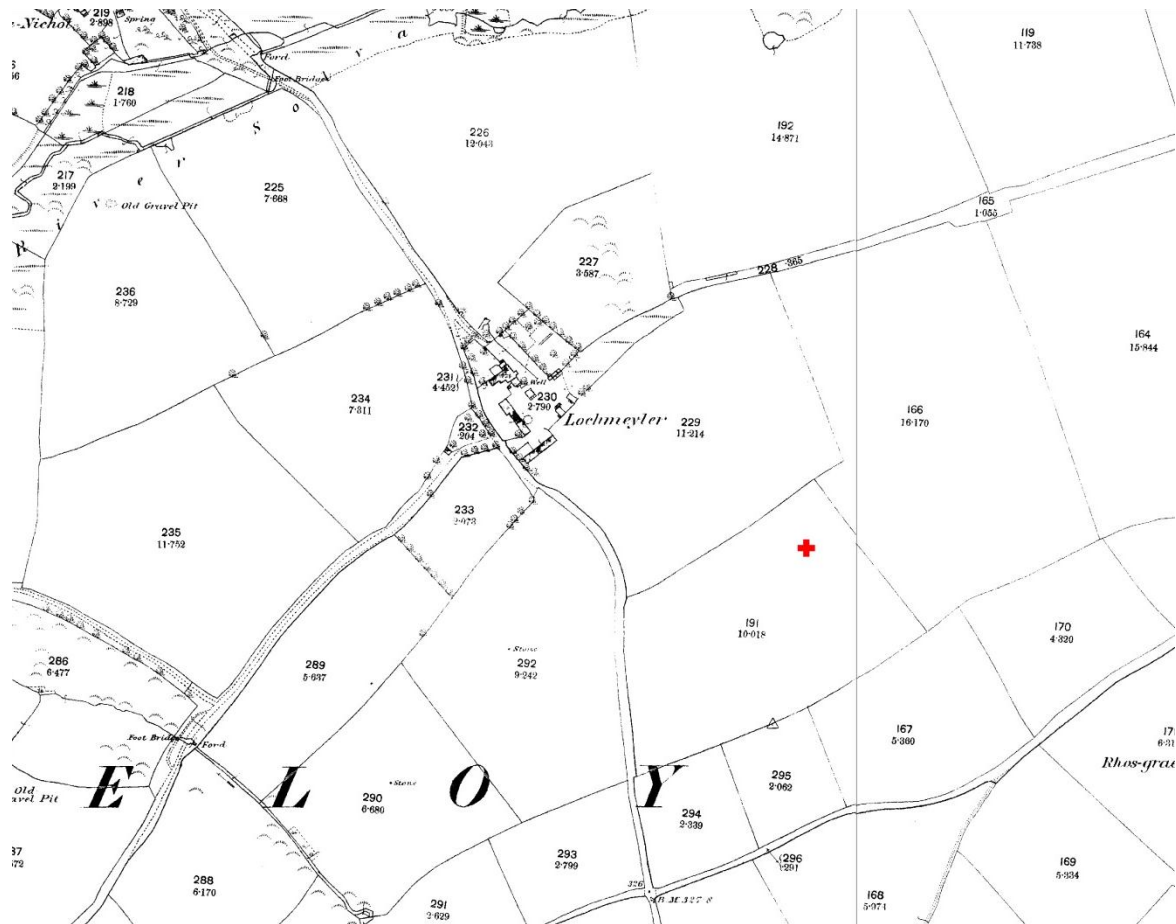
- 4.6.1 The Llandeloy parish tithe map of 1845 (Figure 5) depicts field 124 as the location of the turbine. The tithe apportionment records field 124 and neighboring field 123 as 'park eglwys issa' and 'park eglwys ucha' respectively (as labelled on Figure 6), which translate as 'lower church park' and 'upper church park.' Thus it would seem that both fields are in fact related to HER PRN 4609, Parc yr Eglwys; possibly former church land during the medieval and post-medieval period.
- 4.6.2 The tithe apportionment within which the turbines will be located, was owned by the Reverend Joshua Rowley, rented to William Harries, and recorded as 'Part of Llochmeyler.' There is no record of the state of cultivation.



**Figure 5:** Extract from the 1845 Llandeloy Parish Tithe Map showing the location of the proposed wind turbine (red cross)

- 4.6.3 The 1<sup>st</sup> and 2<sup>nd</sup> edition Ordnance Survey maps of 1889 and 1907 as well as the 6-inch Ordnance Survey maps of 1891, 1908 and 1953 were examined. Figure 6 shows the 1889 map and the proposed location for the wind turbine near Lochmeyler Farm.
- 4.6.4 There is little change to the layout of fields between 1845 (the tithe map) and 1880, but an increase in the number of buildings is recorded at

Lochmeyler farm and surrounding dwellings. The maps show very little change in the area during the time period 1880 – present day.



**Figure 6:** Extract of 1889 1:2500 OS map showing location of proposed wind turbine (red cross)

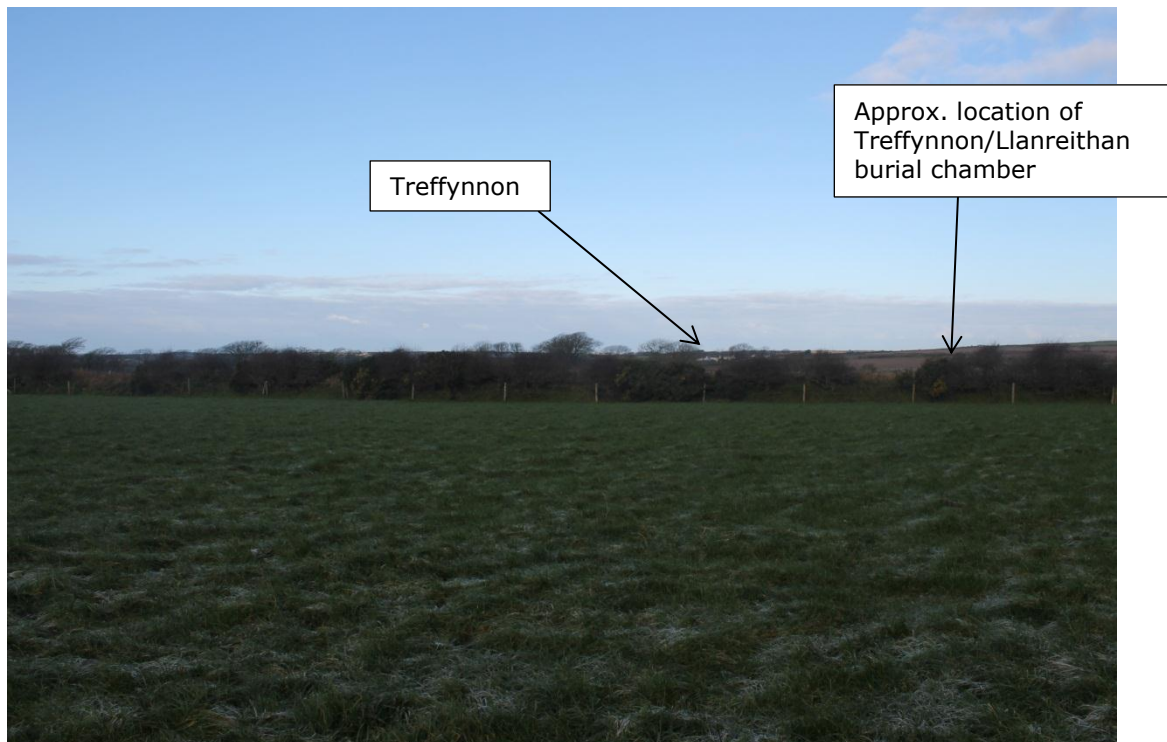
#### 4.7 Site Walkover Survey

- 4.7.1 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. The majority of these views show little of interest (e.g. Photos 2 and 3). None of the registered historic assets in the area could be seen. To the east, approximately 0.5km, 0.6km and 2.5km away, three turbines could be seen, the nearest and the farthest of which were similar to the proposed turbine (Photo 5). One other turbine could be seen in the distance on the horizon to the northwest. The main distant landmarks visible from the site were Carn Llidi mountain on St David's Head to the northwest and Brawdy Airfield and its large military buildings on the high ground to the southwest. Closer by, the small village of Treffynnon could be seen to the north.
- 4.7.2 The field within which the proposed turbine was to be located was under pasture (Photo 4). It had not been ploughed since the current owners moved in in 1989, and as they were local to the area before that they were also able to say that they did not remember ploughing taking place there in the last 40 years.
- 4.7.3 No new archaeological sites were identified during the course of the site visit within the field of the proposed turbine. There was no indication of



the site of the medieval settlement (PRN 12346). The owners did not recall having ever found medieval or other remains around the site, even during groundworks for an extension to the house in the early 1990s.

- 4.7.4 Treffynnon/Llanreithan burial chamber (PE027) was visited. The burial chamber's current situation is next to a tall hedge that obscures the view of it from the proposed turbine site. From the vicinity of the burial chamber, the turbine site is distant and low down, as are the other turbines already sited in the area. Photo 1 shows the approximate position of the burial chamber from the turbine site and Photo 6 vice versa.
- 4.7.5 Castle Villa Camp (PE222) was visited. It was covered with tall trees, could not be seen from the turbine site, and had a wind turbine in the field next to it already. The other prehistoric burial chambers PE159 (White House Burial Chamber) and PE063 (Tre-Howell Burial Chamber) are both over 3.5km from the proposed turbine site, and a judgment was made not to visit them; in both cases the features were not visible from the turbine site and the settings of both monuments were already impacted upon by the other turbines in the area. The same applied to Brawdy promontory fort (PE422) that was even further away, and has the site of Brawdy airfield and another turbine site much closer.
- 4.7.6 Grade II listed Llandeloy Parish church was visited, and was a low church on lower ground below the village, with no views of the proposed turbine possible. The other grade II listed buildings, Llanreithan Mansion and the outbuildings at Tyllwyd, could not be seen from the site due to tall trees and high hedges.
- 4.7.7 The three grade II\* listed buildings (Rickeston Hall, the Church of St Hywel and the Church of St David) lie at some distance away from the turbine site and are screened by trees and hedges. In the case of Rickeston Hall, Brawdy airfield already dominates its setting.



**Photo 1:** View north from turbine location towards village of Treffynnon and the Treffynnon/Llanreithan burial chamber (PE027)



**Photo 2:** View east from turbine location



**Photo 3:** View southwest from turbine location





**Photo 4:** View SW towards site of proposed turbine across field



**Photo 5:** View east from adjacent field to turbine (to avoid hedgerows) towards Castle Villa defended enclosure showing existing turbines



**Photo 6:** View SSE from close to Treffynnon/Llanreithan burial chamber (PE027) towards Lochmeyler farm

## **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 archaeological potential for hitherto unknown archaeological sites to be present within the proposed development area is considered to be low.
- 5.2.2 The turbine will be located on a south facing slope near to the summit of a hill and many springs, a favoured location for prehistoric activity. The presence of the Iron Age enclosures on another south-facing spur of the hill at a similar altitude to the proposed turbine suggests that there is a small chance that further Iron Age settlement may be present. The clear views to the southeast, south and southwest could also make this site a favoured location for such monuments.
- 5.2.2 In consideration of the proximity of the turbine site to recorded medieval settlement and medieval church land, there is a low potential that buried medieval remains are present within the area of the proposed wind turbine.

### **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 Treledydd-Tretio-Caerfarchell which lies around 3.3km to the west (HLC 288). This is considered to lie at a distance over which any significant impacts on the setting of the HLC would be caused by the proposals.
- 5.4.2 The Scheduled Ancient Monument of Treffynnon/Llanreithan (PE027) is only 1.33km north of the turbine site. The turbine site will be visible from the monument (albeit partially hidden by hedgerows), lying on lower ground to the south. There are already two other modern wind turbines and an older turbine in relatively close proximity and in view of the monument. It is therefore considered that there will be a low impact on the setting of the monument. The impact on the settings of the other scheduled monuments potentially inter-visible with the turbine (Castle Villa Camp, White House Burial Chamber, Tre-Howell Burial Chamber and Brawdy promontory fort) is considered to be negligible because of vegetation cover and the presence of modern infrastructure, including other turbines.
- 5.4.4 The visual impact of the turbines on the non-designated features recorded on the HER and NMR within 1.5km of the site is considered to be negligible, again because of vegetation cover and the presence of other modern structures.

## **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. There is a low potential that medieval and/or earlier remains could be found due to the presence of medieval settlement and Iron Age monuments in the vicinity.
- 5.6.2 The presence of four similar turbines sited in the wider area, and the presence of Brawdy Airfield on a nearby hilltop, already sets a precedent for a modern impact on the setting of designated historic assets in this area. Most of these assets are also prevented from having their settings significantly impacted upon by the turbine due to local topography and vegetation cover (tall hedges and localized stands of tall trees). The impact on Scheduled Ancient Monument Treffynnon/Llanreithan burial chamber (PE027) is considered to be low. The impact on all the other designated and non-designated historical assets is considered to be negligible. It is considered unlikely that any further detailed impact assessment would be required on the settings of these sites and monuments.
- 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.
- 5.6.4 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.

### **Database**

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

### **Cartographic**

Llandeloy Parish Tithe Map 1845 and Apportionment 1845

Ordnance Survey      1889    *1:2500 1<sup>st</sup> edition Carmarthenshire*

**APPENDIX 1:  
PROPOSED WIND TURBINE AT LOCHMEYLER FARM,  
NEAR LLANDELOY, PEMBROKESHIRE:  
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 a proposed wind turbine located c.200m southeast of Lochmeyler Farm, Llandeloy Pembrokeshire (NGR SM 85782 27380). The appraisal has been requested by Martin Horne of Winds Ltd to support the planning application for the wind turbines being submitted to Pembrokeshire County Council.
- 1.2 The proposal is for one Endurance E4660 85kw turbine, of 24m height to hub and 37m to the tip of the blades.
- 1.3 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.
- 1.4 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.
- 1.5 An indication of what further archaeological works might be required, if any, will also be prepared.
- 1.6 The specification is in accordance with the *Standard and Guidance for Archaeological Desk-Based Assessments* (Institute for Archaeologists (IfA), 1994, revised 2001 & 2008).
- 1.7 The Trust always operates to best professional practice. DAT Archaeological 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.
- 1.8 ***Dyfed Archaeological Trust is an IfA Registered Archaeological Organisation.***
- 1.9 ***All permanent staff members of DAT Archaeological Services are CSCS<sup>2</sup> registered.***

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<sup>2</sup> 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 a proposed wind turbine at Lochmeyler Farm, near Llandeloy, Pembrokeshire (NGR SM 85782 27380). 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 DAT Archaeological 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 stand-alone 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 RCAHMS Coflein site) – **2km search area**;
- 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 – **5km search area**;
- 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 1.5km (undesigned) search area and 3km (designated sites) search area will be used to determine the presence of historic environment features within the site location for and vicinity of the proposed wind s. This will identify HER sites, SAMs, Listed Buildings and Historic Landscape Characterisation areas etc.

- 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;
  - l. Place-name evidence;
  - m. Newly identified sites of historic importance;
  - n. Cumulative impacts, e.g. wind turbines in close proximity;
  - o. Any Tir Gofal / Glastir 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 DAT Archaeological Services.
- 4.2 The report and site walkover survey will be undertaken by an experienced member of DAT Archaeological Services staff.

#### **5. HEALTH AND SAFETY**

- 5.1 All permanent members of DAT Archaeological Services staff are CSCS<sup>3</sup> registered.
- 5.2 DAT Archaeological 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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<sup>3</sup> Construction Skills Certification Scheme (Health and Safety Tested)

# **PROPOSED WIND TURBINE AT LOCHMEYLER FARM, LLANDELOY, PEMBROKESHIRE: HISTORIC ENVIRONMENT APPRAISAL**

**RHIF YR ADRODDIAD / REPORT NUMBER 2014/49**

**Rhagfyr 2014  
December 2014**

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

**Alice Day**

Swydd / Position: **Assistant Archaeologist**

Llofnod / Signature .....  ..... Dyddiad / Date 8/12/2014

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 DAT Archaeological Services**

Llofnod / Signature .....  ..... Dyddiad / Date 8/12/2014

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



