

Pentre Farm, Llannon, Carmarthenshire Watching Brief



Report by: Trysor

For: WElink Energy

August 2014



Pentre farm, Llannon Carmarthenshire Watching Brief

By

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Trysor Project No. 2014/319

For: WElink Energy

August 2014

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Cover photograph: Along the line of the main trench, looking north.

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DYDDIAD 17^{eg} Awst 2014

DATE 17th August 2014

Paratowyd yr adroddiad hwn gan bartneriad Trysor. Mae wedi ei gael yn gywir ac yn derbyn ein sêl bendith.

This report was prepared by the Trysor partners. It has been checked and received our approval.

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Croesawn unrhyw sylwadau ar gynnwys neu strwythur yr adroddiad hwn.

We welcome any comments on the content or structure of this report.

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Trysor is a Registered Organisation with the Institute for Archaeologists and both partners are Members of the Institute for Archaeologists, www.archaeologists.net .

Jenny Hall (BSc Joint Hons., Geology and Archaeology, MifA) had 12 years excavation experience, which included undertaking watching briefs prior to becoming the Sites and Monuments Record Manager for a Welsh Archaeological Trust for 10 years. She has been an independent archaeologist since 2004 undertaking a variety of work that includes upland survey, desk-based appraisals and assessments, and watching briefs.

Paul Sambrook (BA Joint Hons., Archaeology and Welsh, MifA, PGCE) has extensive experience as a fieldworker in Wales. He was involved with Cadw's pan-Wales Deserted Rural Settlements Project for 7 years. He also undertook Tir Gofal field survey work and watching briefs. He has been an independent archaeologist since 2004 undertaking a variety of work including upland survey, desk-based appraisals/assessments, and watching briefs.

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1. Summary

1.1 During July 2014, Trysor kept a watching brief on the installation of a 5MW solar farm at Pentre farm, Llannon, Carmarthenshire. The stratigraphy of the main cable trenches and the drainage swales was observed. A former boundary bank, shown on the tithe map and 1st edition Ordnance Survey map was recorded and a 20th century drain, but no significant archaeological features were noted.

2. Copyright

2.1 Trysor holds the copyright of this report and of the paper and digital archive. Further paper copies may be made of this report without gaining permission to reproduce but it must be noted that Figure 3 & 5 include other copyright material and should not be copied.

3. Introduction

3.1 Jodie Hoare of Aardvark EM Ltd, Higher Ford, Wiveliscombe, Taunton, Somerset, TA4 2RL has commissioned Trysor heritage consultants to write a Written Scheme of Investigation (WSI) for groundworks for a 5MW solar park on land at Pentre Farm, Llannon, Carmarthenshire relating to planning application number: S/27526

4. The development

4.1 The proposed development site comprises an area of 10.27ha over three irregular shaped fields to the south of Pentre Farm. The site is situated approximately 8.5 km north from Llanelli, and approximately 0.4 km west from the village of Llannon, see Figure 1.

5. Conditions on the consent

5.1 The Local Planning Authority granted full planning permission in March 2013, and they imposed conditions on the outline consent; condition 14 specified the actions necessary to mitigate the impact of the development on the archaeological resource.

No Development shall take place until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant and approved in writing by the Local Planning Authority.

6. Specification

6.1 Trysor prepared the Written Scheme of Investigation which included a specification for the watching brief, see Appendix A.

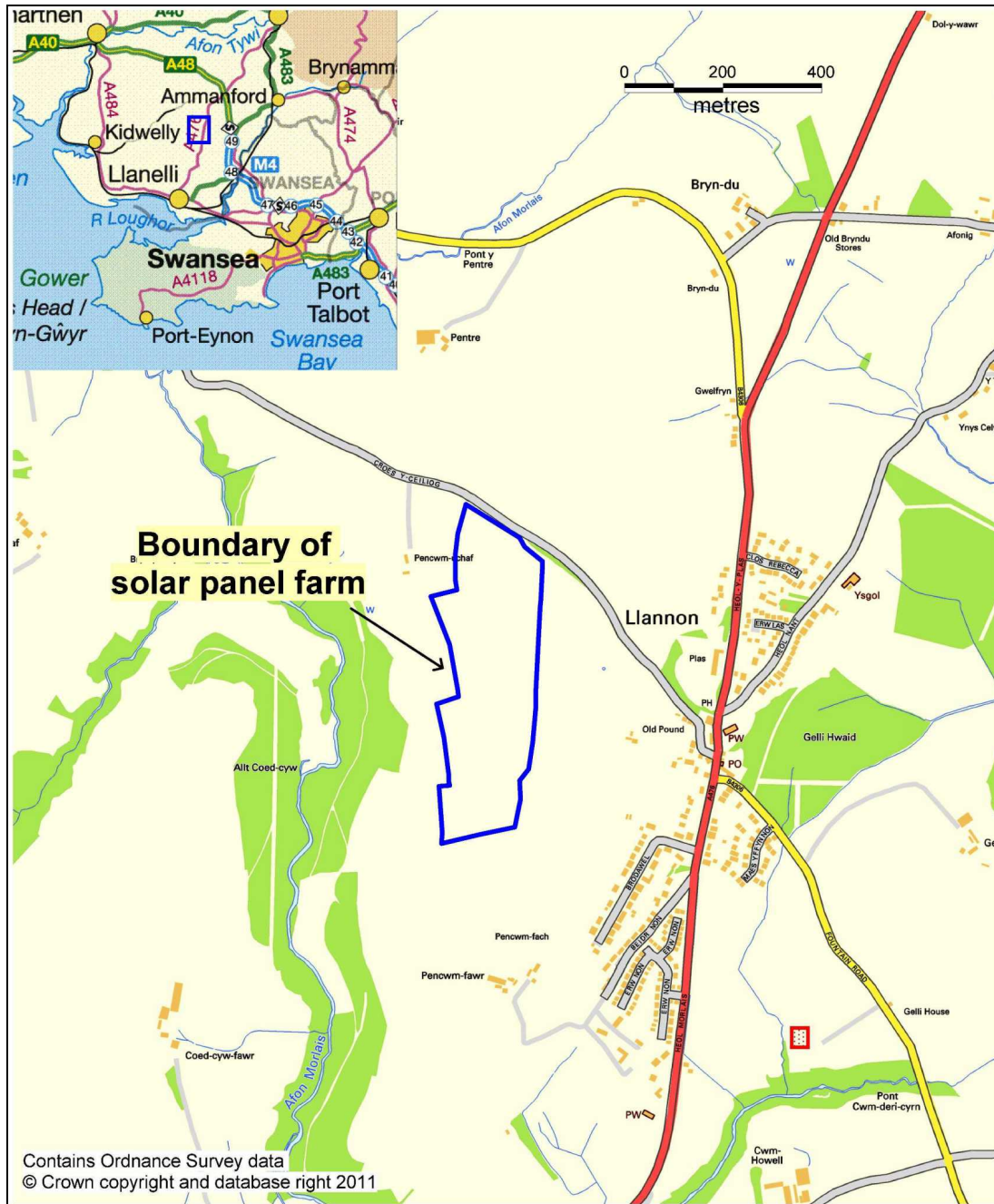


Figure 1: Location of the solar farm.

7. Historical and Archaeological Overview

7.1 The solar farm lies within three field parcels on the western side of a north to south ridge. There are no recorded historic assets within the development area. The historic village of Llannon lies to the east of the ridge and an appraisal undertaken by AC Archaeology in 2013 assessed the likelihood of buried archaeology as Low.

8. Methodology

8.1 The main cable trenches were excavated between 7th to 11th July. A mechanical excavator cut the cable trenches and the process was observed by Trysor. Swales 1.8 metres wide and 0.30 to 0.40 metres deep, were cut around the southern and western sides of the solar farm and this was walked by Trysor and recorded. Figure 2 shows the location of the cable trenches and the swales.

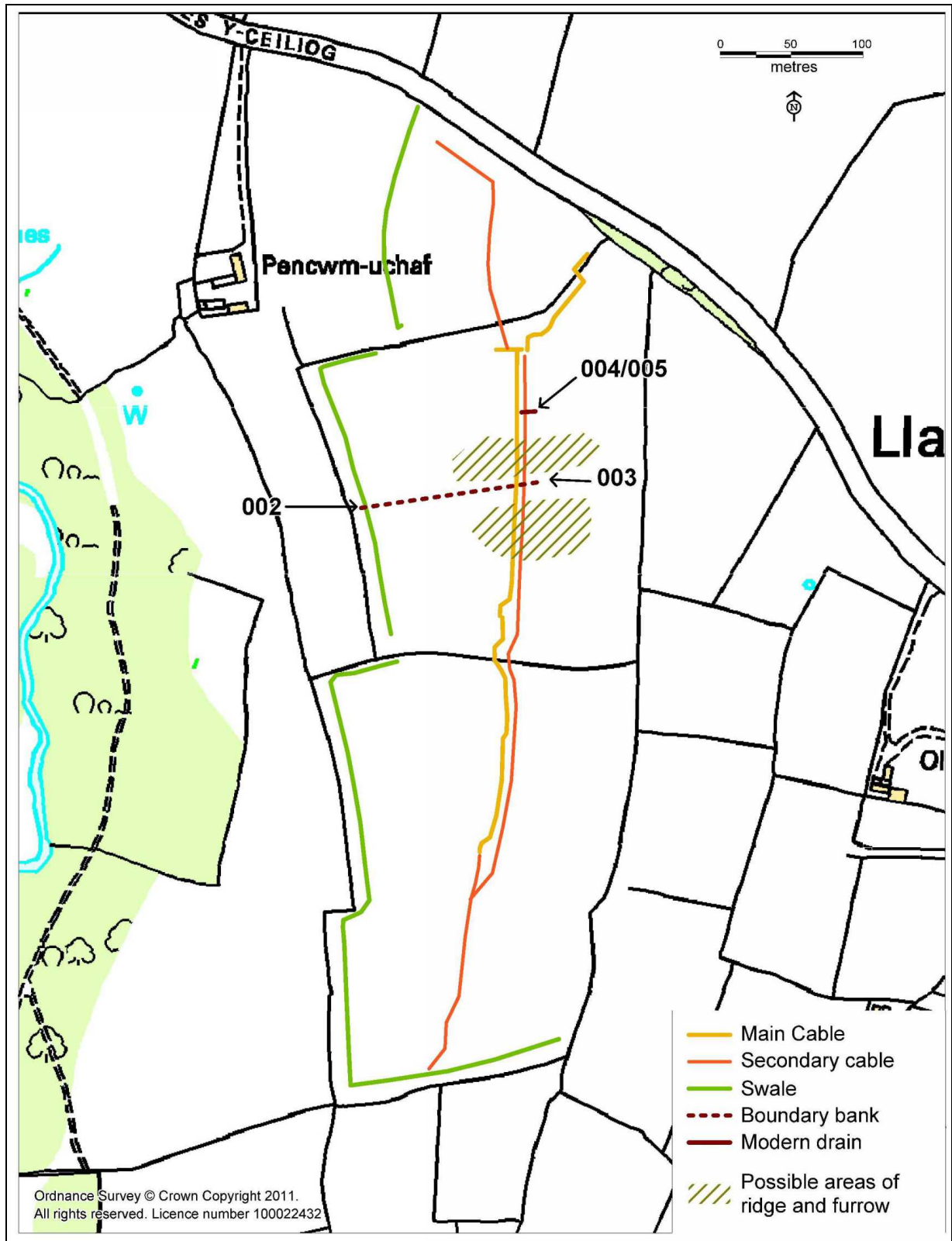


Figure 2: The swales, cable trenches and contexts recorded

9. Site Stratigraphy

9.1 The watching brief was carried out in accordance with the Institute for Archaeologists' *Standard and Guidance for an Archaeological Watching Brief* (Institute for Archaeologists, 2008).

9.2 Context Catalogue

Context Number	Depth	Description	Interpretation
001	Depth of the topsoil varied across the site between 0.15 metres to 0.35 metres deep. Either side of boundary bank 002/003 the ground surface undulated running east to west, the depth of the topsoil matching it	10YR3/1 very dark grey, friable clay loam	Topsoil with possible traces of ridge and furrow either side of boundary bank 002/003
002	0.30 metres	5YR3/3 dark reddish brown silty clay, seen in the excavated swale at SN5340408654 as convex lens, 1.5 metres wide north to south and c. 0.30 metres deep	Former boundary bank, ploughed out after the 1 st edition Ordnance Survey map.
003	c. 0.30 metres	10YR4/2 dark grayish brown clay loam	Former boundary bank, ploughed out after the 1 st edition Ordnance Survey map.
004	-	Red ceramic drain pipe lies between 0.60 to 0.70 metres below the ground surface	Drain, fill of 005
005	0.60 to 0.70 metres	Cut of drain not clearly seen in the section. The narrowness of the trench	Cut of drain, filled by 004
006	-	A varied layer of yellow clays with some stones within, overlying bedrock.	Subsoil, natural boulder clay overlying rock.

005
Fill

004
Drain cut

001
Ploughsoil

003
Former Boundary bank

002
Former boundary bank

006 Natural Subsoil

10. Photographs

10.1 Colour digital photographs were taken of topsoil stripping and excavation of trenches using a 16M pixel camera. The following table describes the content of each photograph included in the project archive and their locations are provided in the following map, see Figure 3. The photographs are included in Appendix B at the end of the report.

Photo Number	Description	Date Taken	Direction
PFL2014_101	Truncated boundary bank at SN5353008787	07/07/2014	Looking west southwest.
PFL2014_102	The swale at the southern end of the site at SN5348408260	07/07/2014	Looking east northeast.
PFL2014_103	A ploughed-out bank taken from SN5351708670.	07/07/2014	Looking west.
PFL2014_104	The main cable trench being cut at SN5350908619, at the same time as spur trenches are opened and cable-laying is undertaken.	08/07/2014	Looking northwest.
PFL2014_105	The main cable trench showing cables laid at SN5347708352	08/07/2014	Looking northwest.
PFL2014_106	Cable trench moled beneath boundary bank at SN5349308779,	08/07/2014	Looking north.
PFL2014_107	Section of the main cable trench at SN5351608640,	07/07/2014	Looking east.
PFL2014_108	Section of the main cable trench at SN5351808715	08/07/2014	Looking east.
PFL2014_109	Section of the main cable trench at SN5350908616,	09/07/2014	Looking west.
PFL2014_110	Section of the main cable trench at SN5349708419	11/07/2014	Looking east.
PFL2014_111	Section of the main cable trench at SN5351108510	11/07/2014	Looking east.
PFL2014_112	Boring holes for the supporting posts for the solar panels	09/07/2014	
PFL2014_113	Vertical view of one of the holes bored for the supporting posts	08/07/2014	
PFL2014_114	Supporting posts erected ready to receive the panels.	10/07/2014	

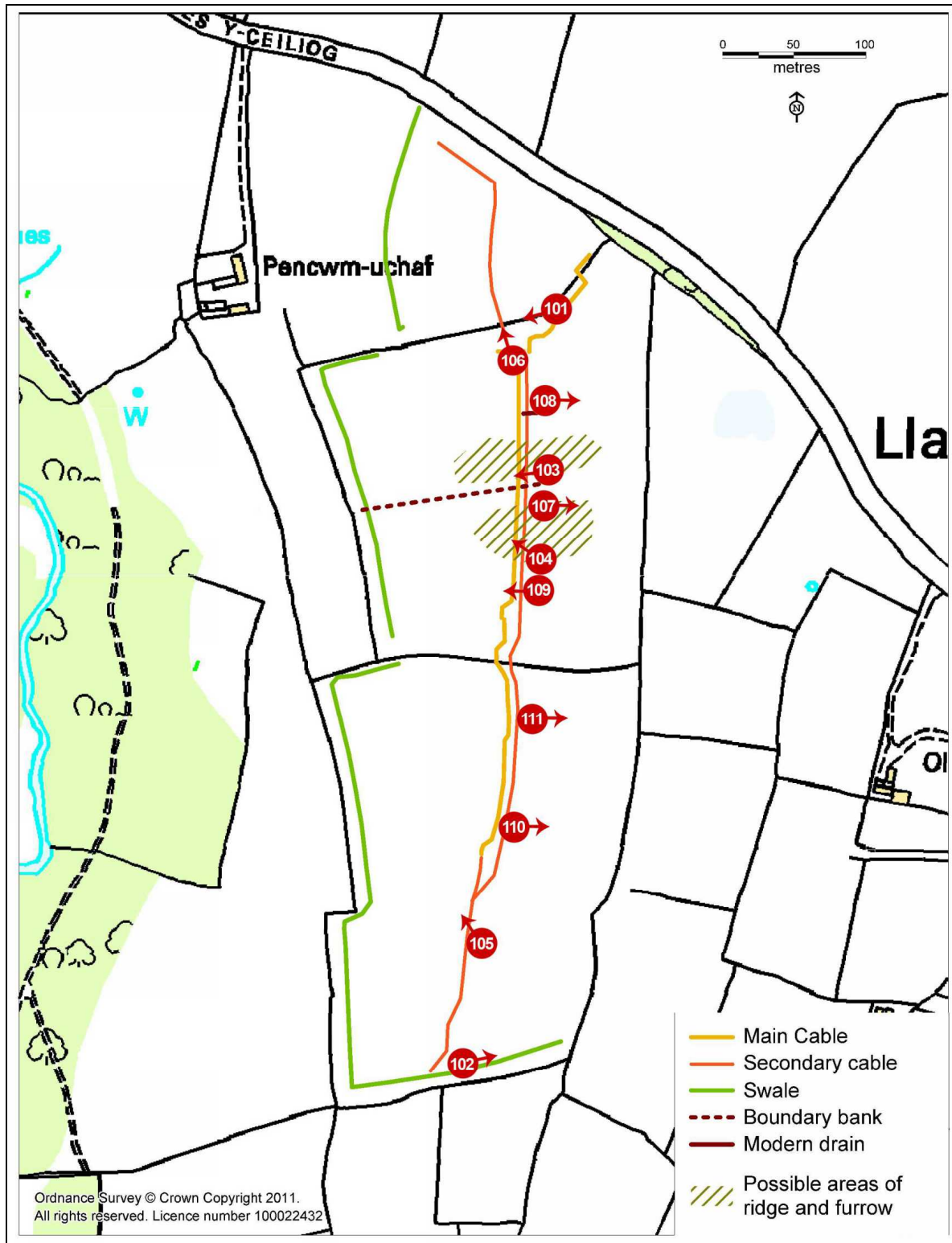


Figure 3: Location of photographs

11. Conclusion

A post medieval boundary bank and a 20th century drain were observed but no significant archaeological contexts were recorded.

12. Archive

12.1 The archive and a copy of the report and photographs will be deposited with the National Monuments Record, Aberystwyth. Photographs are in TIFF format, following the standard required by the RCAHMW.

12.2 A copy of the report will also be supplied to the Historic Environment Record at Dyfed Archaeological Trust, Llandeilo.

13. Sources

Institute for Archaeologists, 2013 (updated), *Standard and Guidance for an Archaeological Watching Brief*, available online from the IfA website, www.archaeologists.net

Jones, P, 2013, *Land at Pentre Farm, Llannon, Carmarthenshire, Archaeological and historical site appraisal*, AC Archaeology report ACD687/1/1

Trydor, 2013, *Pentre Farm, Llannon, Carmarthenshire, Written Scheme of Investigation*

APPENDIX A – Watching Brief Specification

PENTRE FARM, LLANNON, CARMARTHENSHIRE WRITTEN SCHEME OF INVESTIGATION

Planning Application - S/27526

1. Introduction

Jodie Hoare of Aardvark EM Ltd, Higher Ford, Wiveliscombe, Taunton, Somerset, TA4 2RL has commissioned Trysor heritage consultants to write a Written Scheme of Investigation (WSI) for groundworks for a 5MW solar park on land at Pentre Farm, Llannon, Carmarthenshire relating to planning application number: S/27526.

The solar park will occupy three fields centred on SN 53478 08621.

2. The development

The proposed development site comprises an area of 10.27ha over three irregular shaped fields to the south of Pentre Farm. The site is situated approximately 8.5 km north from Llanelli, and approximately 0.4 km west from the village of Llannon.

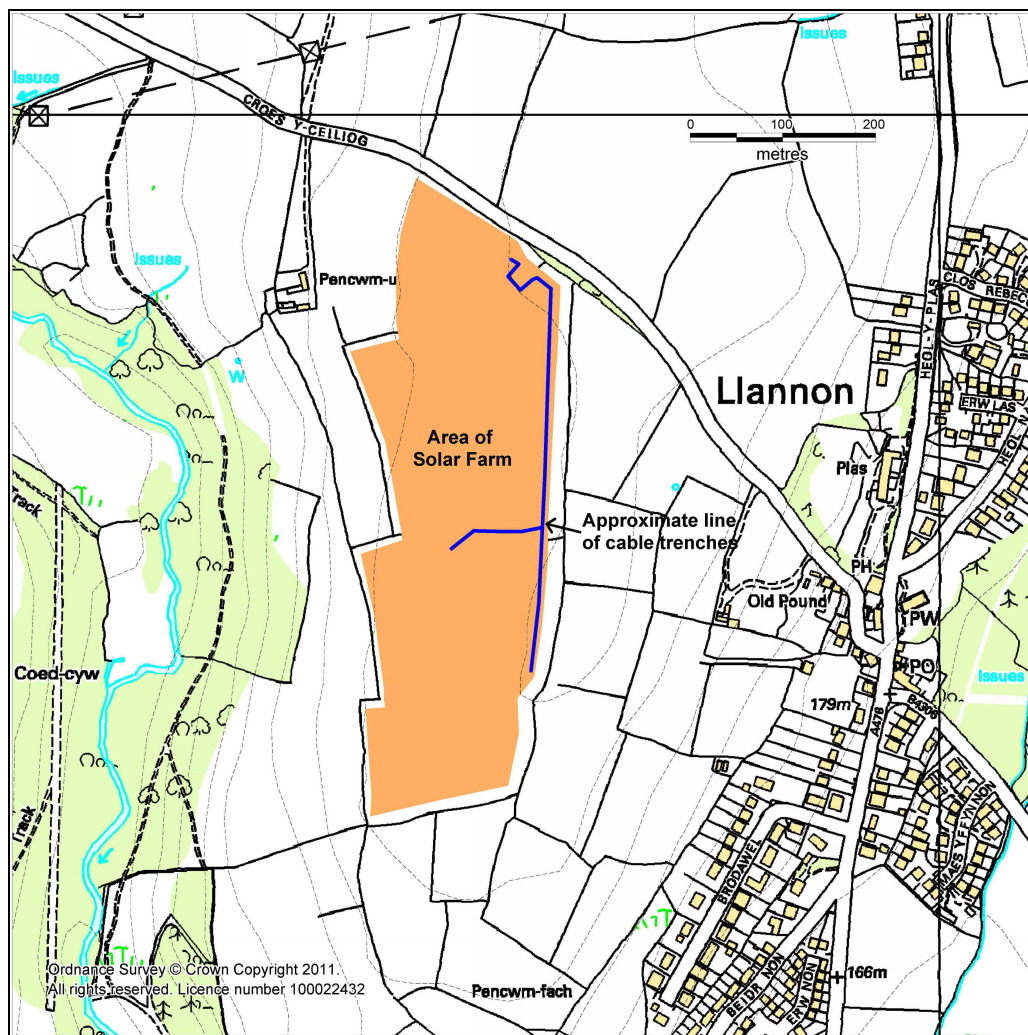


Figure 1: Location of the solar farm, showing topography and the main cable trenches

3. Nature of the archaeological resource

In a letter dated 22 February 2013, as part of their advice to the Local Planning Authority, (LPA), Dyfed Archaeological Trust, stated that: “...*some potential for buried archaeology due to the proximity of Llannon, with its early pre-Norman conquest church, dedicated to the mother of St David, the patron saint of Wales*”

They recommended that a Grampian-style Condition be attached if planning permission was granted, and that this should state that a written scheme of investigation should be prepared. It was advised in the letter that it should include *detailed specifications for an initial field evaluation, which should include a geophysical survey, carried out prior to the commencement of development.*

4. Conditions on the consent

The Local Planning Authority granted full planning permission in March 2013, and they imposed conditions on the outline consent; condition 14 specified the actions necessary to mitigate the impact of the development on the archaeological resource.

No Development shall take place until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant and approved in writing by the Local Planning Authority.

5. Appraisal

In April 2013 Aardvark EM Ltd commissioned AC Archaeology to undertake a desk-based historical and archaeological to identify the impact of the scheme on known heritage assets within the application area (Jones, P, 2013)

The appraisal concluded that *there are no known archaeological sites within the proposed area of development, and the overall likelihood of buried archaeological remains is low*

6. Discharge of Condition

Following the submission of this appraisal to the LPA, Eifion Bowen, the Head of Planning, wrote a letter on 27/06/2013 to Jodie Hoare, the agent. This letter said

“I write further to the above and the information you have submitted in respect of discharge of condition. I am pleased to confirm that the following conditions are hereby discharged....

Condition 14 - Archaeology. The information received 31 May 2013 confirms that the likelihood of archaeological interest is low, so a watching brief is only required for major disruption in the form of significant cable trenches rather than in the arrays themselves”

7. Written Scheme of Investigation

In order to complete the discharge of Condition 14 Aardvark EM Ltd asked Trysor to prepare the Written Scheme of Investigation (WSI). Trysor has reviewed the information in the appraisal, and other sources, as well as a site visit in order to determine appropriate mitigation.

8. Review of the archaeological resource

The location of the solar farm lies within three field parcels on the western side of a north to south ridge. There are no recorded historic assets within the development area. Site visits by Paula Jones of AC Archeology and Trysor did not find any evidence for unknown historic assets within the fields affected by the proposed development.

Map searches, including the tithe map and field names recorded on the tithe schedule, revealed no new evidence for significant historic assets.

Two of the three existing fields are shown as being subdivided on the tithe map and 1st edition Ordnance Survey map, but two boundary banks have been removed to create the present field pattern. Buried evidence of the removed field boundaries is likely to survive beneath the surface, but these features are post medieval in date and not of significance.

The appraisal considered a 1km radius search area beyond the solar farm. Within this search area there were no sites earlier than the medieval period. One site was identified as medieval, the parish church of Llannon, formerly a chapelry in the possession of the Bishops of St Davids. Although the church has a “Celtic” dedication to Non, the mother of St David, Neil Ludlow concluded in the Cadw grant-aided Early Medieval Ecclesiastical Sites project that there was no evidence for an early medieval date. All the other sites were post medieval in date. (Jones, P, 2013)

9. Effect of development on the archaeological resource

There is no historic asset currently recorded within the field parcels that the solar farm will lie in. Some post medieval field boundaries have been removed and the main cable trench will cut through one of these as well as two extant boundaries.

10. Proposed archaeological intervention

As indicated by the Head of Planning in his letter of 27th June 2013, it is proposed that a watching brief is undertaken on the excavated groundworks for the cable trenches.

According to the Institute for Archaeologists’ *Standard and Guidance for an Archaeological Watching Brief* the purpose of a watching brief is:

“• to allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works

• to provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard

A watching brief is not intended to reduce the requirement for excavation or preservation of known or inferred deposits, and it is intended to guide, not replace, any requirement for contingent excavation or preservation of possible deposits.

The objective of a watching brief is to establish and make available information about the archaeological resource existing on a site.”

11. Field methodology

Trysor propose that the open cable trenches area will be examined by Trysor and any archaeological features recorded.

The watching brief will be carried out in accordance with Institute for Archaeologists' *Standard and Guidance for an Archaeological Watching Brief* (IfA, 2008a)

A two-person team will examine the exposed stratigraphy of the main cable trenches. The trenches will be examined and features of archaeological interest recorded. Excavation of any features will be limited to that necessary to establish their extent and character, unless their excavation is required to allow the development to proceed.

12. Contingency arrangements if archaeological features are discovered

In the event that archaeological remains are encountered, where appropriate investigation falls outside the scope of this watching brief specification, a meeting between Trysor, the applicant, Dyfed Archaeological Trust Heritage Management Section and the Local Planning Authority case officer will be convened in order to agree a course of action. The applicant will be responsible for paying for any further work necessary.

13. Health & Safety

Trysor will undertake a risk assessment in accordance with their health and safety policy.

14. Recording

A plan of the groundworks, and representative sections of the trenches, will be drawn, at an appropriate scale, recording all features of archaeological interest. The plan will be based on the applicants' survey drawings of the development area.

A written record of all activity will be kept in a project specific notebook. If archaeological contexts are encountered they will be recorded following the *Central Excavation Unit Manual: Part 2: Recording*, 1986, using a consecutive numbering system.

Any artefacts will be dealt with in accordance with the guidance provided in the Institute for Archaeologists *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials* (IfA, 2008b). Any artefacts will be retained, cleaned and stored. Following reporting they will be returned to the applicant.

Should any human remains be encountered, the Coroner and Regional Archaeological Trust will be immediately informed and the remains left *in situ*.

Colour digital photographs will be taken, as appropriate, using a 14M pixel camera. A written record will be made on site of the photographs taken. Appropriate photographic scales will be used.

15. Reporting

A report on the watching brief will be prepared according to the requirements of Annexe 1 of the Institute for Archaeologists' *Standard and Guidance for an Archaeological Watching Brief* following the completion of the work. Copies of the report will be provided to the client, the Regional Historic Environment Record and the National Monuments Record.

16. Dissemination

A summary of the work undertaken and its findings will be submitted to *Archaeology in Wales*.

17. Archive

The paper archive will be deposited with the National Monuments Record, including a copy of the final report in accordance with the IfA's *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives* (IfA, Undated). This archive will include all written, drawn and photographic records relating directly to the investigations undertaken. Photographs will be supplied in TIFF format in a file size greater than 11MB, following the standard required by the RCAHMW for Upland Survey (RCAHMW, 2011).

18. Resources to be used

Two members of staff will undertake the watching brief. They will be equipped with standard field equipment, including digital cameras, GPS and first aid kits.

Trysor have access to the computer hardware and software required to deliver the completed final report and archive to a professional standard.

19. Bibliography

19.1 Published Sources

IfA, 2008a, *Standard and Guidance for an archaeological watching brief*

IfA, 2008b, *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials*.

IfA, Undated, *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives*

19.2 Unpublished sources

Central Excavation Unit, 1986, *Central Excavation Unit Manual: Part 2: Recording*, 1986

Jones, P, 2013, *Land at Pentre Farm, Llannon, Carmarthenshire, Archaeological and historical site appraisal*, AC Archaeology report ACD687/1/1

RCAHMW, 2011, *Form AB12: "Notes for Guidance" in the preparation of applications for Uplands Archaeology Initiative projects 2012-13*

19.3 Ordnance Survey maps

Ordnance Survey, 1831, 1" to 1 mile

Ordnance Survey, 1889, 1:2500

19.4 Other maps

Tithe map, 1841, Llannon parish

20. Qualification of personnel

Trysor is a Registered Organisation with the Institute for Archaeologists and both partners are Members of the Institute for Archaeologists, www.archaeologists.net.

Jenny Hall (BSc Joint Hons., Geology and Archaeology, MifA) had 12 years excavation experience, which included undertaking watching briefs prior to becoming the Sites and Monuments Record Manager for a Welsh Archaeological Trust for 10 years. She has been an independent archaeologist since 2004 undertaking a variety of work that includes upland survey, desktop assessments and watching briefs.

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21. Insurance & Professional indemnity

Trysor has Public Liability and Professional Indemnity Insurance.

22. Project identification

The project has been designated Trysor Project No. 2013/319

Jenny Hall & Paul Sambrook
Trysor
September 2013

APPENDIX B



Plate 1: PFL2014_101, Truncated boundary bank at SN5353008787, looking west-southwest.



Plate 2: PFL2014_102, a swale at the southern end of the site at SN5348408260.



Plate 3: PFL2014_103, A ploughed out bank looking west from SN5351708670.



Plate 4: PFL2014_104, the main cable trench being cut at SN5350908619, at the same time as spur trenches are opened and cable-laying is undertaken. Looking northwest.



Plate 5: PFL2014_105, the main cable trench showing cables laid at SN5347708352, looking northwest.



Plate 6: PFL2014_106, cable trench moled beneath boundary bank at SN5349308779, looking north.



Plate 7: PFL2014_107, section of the main cable trench at SN5351608640, looking east



Plate 8: PFL2014_108, section of the main cable trench at SN5351808715, looking east.



Plate 9: PFL2014_109, section of the main cable trench at SN5350908616, looking west.



Plate 10: PFL2014_110, section of the main cable trench at SN5349708419, looking east.



Plate 11: PFL2014_111, section of the main cable trench at SN5351108510, looking east.



Plate 12: PFL2014_112, boring holes for the supporting posts for the solar panels



Plate 13: PFL2014_113, vertical view of one of the holes bored for the supporting posts.



Plate 14: PFL2014_114, supporting posts erected ready to receive the panels.