



**Prosiect Maen Hir
Anglesey**

**Prosiect Maen Hir
Ynys Mon**

*Historic Environment Desk-Based
Assessment
Draft for PEIR*

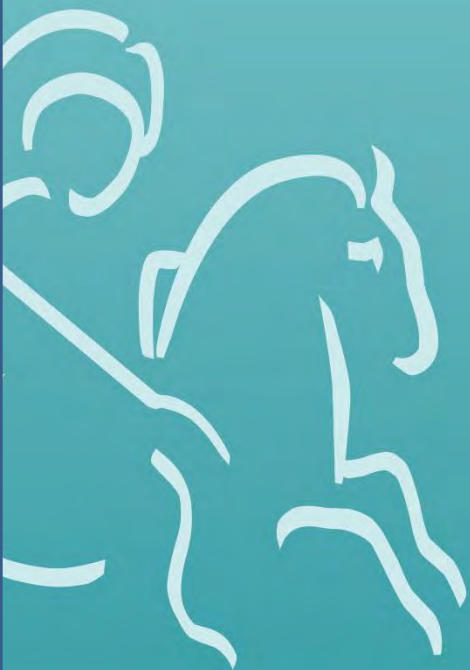


Report prepared for:
Lightsource SPV 204 Limited

CA Project: CR1327

CA Report: CR1327_2

July 2024



Prosiect Maen Hir, Anglesey

Prosiect Maen Hir, Ynys Mon

Heritage Desk-Based Assessment

Draft for PEIR

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Heneb Event PRN: 46696

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Designated Assets Data	CADW
LiDAR imagery and point cloud data	Natural Resources Wales (NRW) website
Tithe Map	The National Library of Wales
Envirocheck	OS Mapping
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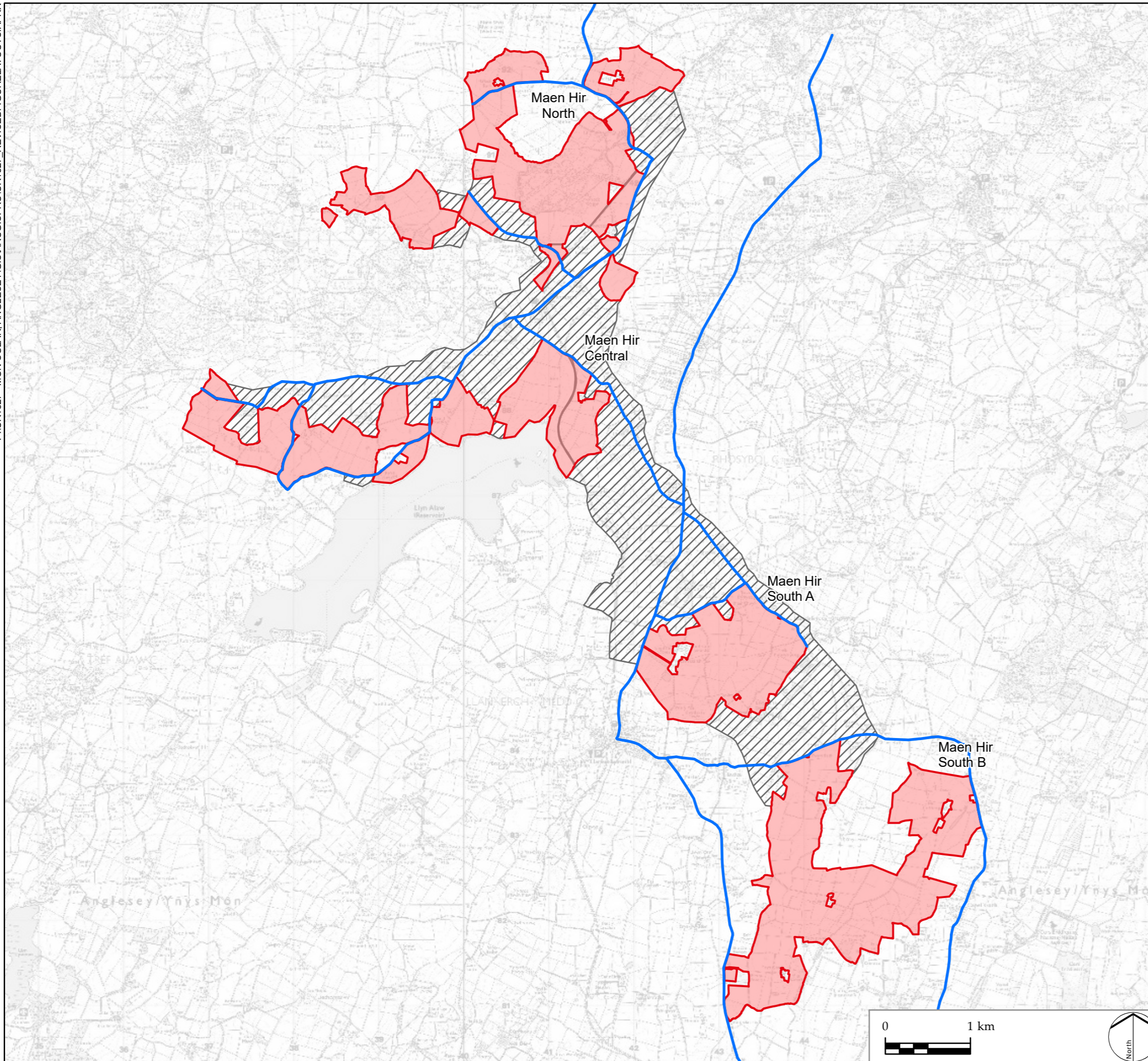
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LEGEND

-  Site Boundary
-  Cable route corridor
-  Highway works



PROJECT TITLE
PROSIECT MAEN HIR

DRAWING TITLE
Site location plan

ISSUED BY	Andover	T: 01264 347 630
DATE	09/07/2024	DRAWN DL
SCALE @A3	1:45,000	CHECKED JS
STATUS	Draft	APPROVED JS

DWG. NO. 1

No dimensions are to be scaled from this drawing.
 All dimensions are to be checked on site.
 Area measurements for indicative purposes only.

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Sources: Ordnance Survey, Natural Resource Wales, Isle of Anglesey County Council

1. INTRODUCTION

1.1. In July 2023, Cotswold Archaeology was commissioned by Lightsource SPV 204 Limited to undertake a Heritage Desk-Based Assessment in respect of land in North Anglesey, Wales (henceforth – ‘the Site’), known as Prosiect Maen Hir. Presently the Site is as an expanse of predominately pastoral fields, with a small number of arable fields, along with the site of the Former Oil Depot and fields utilised for wind turbines (Photos 1 to 10). The Site is located within north Anglesey, near to the settlements of Amlwch and Llanerch-y-medd, Parys Mountain, Llyn Alaw (Fig. 1).

1.2. The Site has been split into four distinct areas (Fig. 1) that allow for the discussion of archaeological remains and designated historic assets:

Maen Hir North (Photos 1 to 4)

1.3. Maen Hir North is located at NGR 240643 391159 (approximate centre). The parcel equates to c.377ha. The area is characterised by a complex landscape of extensive drumlin fields with consistent south-west to north-east orientation and shallow valleys. It is predominantly intensively farmed improved grassland across the drumlins with marshy grasslands and scrub between.



Photo 1. Maen Hir North, viewed from the south



Photo 2. Maen Hir North, viewed from the west



Photo 3. Maen Hir North, viewed from the east



Photo 4. Maen Hir North, viewed from the south-west



Photo 5. Maen Hir Central, viewed from the south-east



Photo 6. Maen Hir Central, viewed from the west

Maen Hir Central (Photos 5 to 7)

- 1.4. Maen Hir Central is located at NGR 240759 388131 (approximate centre). The parcel equates to c.317ha located to the north and east of Llyn Alaw reservoir. The topography of the area is characterised by extensive drumlin fields surrounding the reservoir of Llyn Alaw.



Photo 7. Maen Hir Central, viewed from the south



Photo 8. Maen Hir South B, viewed from the north



Photo 9. Maen Hir South B, viewed from the west

Maen Hir South A and Maen Hir South B (Photos 8 to 10)

- 1.5. Maen Hir South comprises two parcels (A and B) and is located at NGR 244492 382579 (approximate centre) and NGR 243092 385140. Maen Hir South A equates to c.191ha, and Maen Hir South B equates to c.399ha. Hedges, trees and woodland

form the boundaries to the fields. The area is characterised by undulating topography with occasional rocky outcrops and small areas of semi-natural habitat including mires scattered throughout the area within a matrix of improved agricultural grassland.



Photo 10. Maen Hir South B, viewed from the south

Project summary

1.6. The Project comprises the construction, operation and maintenance, and decommissioning of a solar photovoltaic (PV) electricity generating station with a capacity of over 350 MW (megawatts), associated development including a Battery Energy Storage System (BESS), a 5MWp Community Solar Project, Project Substation and Ancillary Infrastructure. The Project comprises the following principal components:

- Solar PV Site (Maen Hir North, Maen Hir Central, and Maen Hir South 'A' and 'B'):
 - PV Arrays – PV Modules and Mounting Structures forming PV Tables and laid out in PV Arrays
 - Low Voltage Distribution Cabling
 - 33kV / 132kV Substations, to include but not limited to transformers and switchgear
 - Inverters - String Inverters (under or next to PV Tables) or Central Inverters (which would be located throughout the Solar PV Site)
 - Transformers - required to step up the voltage of the electricity generated by the PV Arrays before it is routed to the Project Substation
 - Project Substation which consists of electrical infrastructure such as the Transformers, Switchgear and metering equipment with a ring main unit (RMU unit) at 33kV

- Battery Energy Storage System (BESS) - typically comprising containers which include the rack, modules, and cells; Power Conversion Systems (inverters and transformers) and ancillary infrastructure
- Fencing, security and ancillary infrastructure
- Access Tracks
- Highway Works
- Drainage and services
- Public rights of way improvements and permissive paths
- Green Infrastructure
- 5MWp Community Solar Project
- Construction Compounds
- Cable Route Corridor – the route for the proposed 132kV and/or 33kV underground cables connecting the 33kV and 132 kV Substations to the BESS and the Project Substation;
- Grid Connection Corridor – the proposed corridor for the Grid Connection Cables between the Project Substation and the NGET Substation. This corridor is still to be defined as it is dependent on the siting of the NGET Substation; and
- Mitigation and/or Enhancement Areas.

1.7. This assessment forms an Annex to the Cultural Heritage PIER Chapter prepared for the proposed development. This a preliminary assessment which will be updated in due course with additional information for the submission with the DCO. This document does not represent a ‘full or complete assessment’ with further surveys and assessment work on-going at the time of writing. The purpose of this document is to present the assessment work completed to date, to set out the planned further work and to present broad, narratives on the likely effects of the proposed development.

Objectives and professional standards

1.8. The composition and development of the historic environment within the Site and wider landscape are discussed in this report. A determination of the significance of any historic assets located within the Site, and any historic assets beyond the Site boundary that may potentially be affected by the development proposals, is presented. Any potential development effects upon the significance of these historic assets (both adverse and/or beneficial) are then described.

1.9. CA is a Registered Organisation with the Chartered Institute for Archaeologists (CIfA). This report has been prepared in accordance with appropriate standards and guidance, including the ‘Standard and Guidance for Historic Environment Desk-Based Assessment’ published by CIfA in 2014 and updated in 2017 and 2020. This states that, insofar as they relate to the determination of planning applications, heritage desk-based assessments should:

‘...enable reasoned proposals and decisions to be made [as to] whether to mitigate, offset or accept without further intervention [any identified heritage] impact’ (CIfA 2020, 4).

1.10. The ‘Technical Advice Note 24: The Historic Environment’ (TAN 24) of Planning Policy Wales (PPW) further states that the:

‘... need for a desk-based assessment... should be discussed with the local planning authority prior to submission of an application, and where required the results of these studies should be submitted as part of the planning application (Welsh Government 2017).

Statute, policy, and guidance context

1.11. The Site is in the local authority of Ynys Mon/Isle of Anglesey Council. The region is covered by the *Anglesey and Gwynedd Joint Local Development Plan* which was adopted in 2017 and covers the period up to 2026 (Ynys Mon/Isle of Anglesey County Council and Gwynedd Council 2017). The historic environment is included within multiple policies:

- Policy PS 20: Preserving and where appropriate enhancing historic assets;
- Policy AT 1: Conservation Areas, World Heritage Sites and Registered Historic Landscapes, Parks and Gardens;
- Policy AT 2: Enabling development;
- Policy AT 3: Locally or regionally significant non-designated historic assets; and
- Policy AT 4: Protection of non-designated archaeological sites and their setting.

1.12. Further details on these policies are provided in Annex 1.

1.13. This assessment has been undertaken within the key statute, policy, and guidance context presented within Table 1.1. The applicable provisions contained within these

statute, policy and guidance documents are referred to, and discussed, as relevant, throughout the text. More detail is provided in Annex 1.

Statute	Description
Ancient Monuments and Archaeological Areas Act (1979)	Act of Parliament providing for the maintenance of a schedule of archaeological remains of the highest significance, affording them statutory protection.
Planning (Listed Buildings and Conservation Areas) Act (1990)	Act of Parliament placing a duty upon the Local Planning Authority (or the Secretary of State) to afford due consideration to the preservation of Listed Buildings and their settings (under Section 66(1)), and Conservation Areas (under Section 72(2)), in determining planning applications.
Historic Environment (Wales) Act 2016	Act passed by the National Assembly for Wales on 9 February 2016 which became law on 21 March 2016. It also contains new stand-alone provisions for matters such as historic place names and historic environment records.
Planning Policy Wales (Edition 12, February 2024)	Provides the Welsh Government's planning policies and describes how these are expected to be applied within the planning system. The Historic Environment is subject to Chapter 6 (page 129).
Technical Advice Note (TAN) 24: The Historic Environment (Welsh Government 2017)	The TAN provides guidance on how the planning system considers the historic environment and should be read in conjunction with Planning Policy Wales (PPW).
Cadw Best Practice Guidance	Includes, Conservation Principles (2011), Setting of Historic Assets in Wales (2017a), Heritage Impact Assessment (2017b)
Anglesey and Gwynedd Joint Local Development Plan (2017)	Comprises the local development plan (local plan), as required to be compiled, published, and maintained by the local authority, consistent with the requirements of PPW (2024 and TAN 24 (2017)). Intended to be the primary planning policy document against which planning proposals within that local authority jurisdiction are assessed. Where the development plan is found to be inadequate, primacy reverts to PPW (2024) and TAN 24 (2017).
Hedgerows Regulations (1997)	Provides protection for 'important' hedgerows within the countryside, controlling their alteration and removal by means of a system of statutory notification.
Standard and guidance for historic environment desk-based assessment (CIfA 2020)	This guidance seeks to define good practice for the execution and reporting of desk-based assessment in line with the regulations of CIfA, in particular the Code of conduct.
Principles of Cultural Heritage Impact Assessment in the UK (IEMA, IHBC, CIfA 2021)	This document provides guidance for cultural heritage practitioners in regard to the principles of CHIA. These are A. understanding cultural heritage assets; and B. evaluating the consequences of change.
Research Framework for the Archaeology of Wales	Provides a background to assist archaeologists and organisations on a number of key aspects; appreciate the broader context or work that has been done already; consider the needs and opportunities for new research; identify collaborators and stakeholders; seek funding; promote training; prioritise the use of resources; develop future research frameworks.

Statute	Description
The ‘Guidance for the Submission of data to the Welsh Historic Environment Records’ produced by the Welsh Archaeological Trusts (2022)	This document aims to provide guidance to allow HER users to submit data in a format that can be easily integrated into the now-statutory regional HERs, taking into account the need for certain project types to supply Welsh translations for certain fields in accordance with new legislation.
Overarching National Policy Statement for Energy (EN-1) 2011 (Section 5.8 Historic environment)	This states that “the construction, operation and decommissioning of energy infrastructure has the potential to result in adverse impacts on the historic environment” (Paragraph 5.8.1). It continues to define heritage assets, how the potential impact of development should be assessed, and how this should be regarded in decision making, before detailing why and how to record heritage assets in advance of development. The general principles of the Policy in section 5.8 broadly reflect those of the Planning Policy Wales.
Overarching National Policy Statement for Energy (EN-1) 2023 (Section 5.9 Historic environment)	This discusses relevant policies and approach to assessment under section 5.9: historic environment. This broadly reiterates the adopted NPS EN-1, and policies within Planning Policy Wales.
Overarching National Policy Statement for Energy (EN-1) 2023 (Section 3.10 on solar photovoltaic generation, with paragraphs 3.10.98-3.10.110 relating to cultural heritage)	Section 3.10 considers solar photovoltaic generation, with paragraphs 3.10.98-3.10.110 relating to cultural heritage. The document recognises (at paragraph 3.10.100) that “below ground impacts are generally limited” and states further (at paragraph 3.10.101) that “solar PV developments may have a positive effect, for example archaeological assets may be protected ... as the site is removed from regular ploughing”

Table 1.1 Key statute, policy, and guidance

Consultation

- 1.14. A Written Scheme of Investigation for a Historic Environment Desk-Based Assessment was submitted to Heneb: Gwynedd Archaeology (formerly Gwynedd Archaeological Planning Service; GAPS) and approved on 27 October 2023. Following this, a meeting between Cotswold Archaeology and the archaeological advisor at Heneb took place on 17 November 2023 in which approach to the DBA, Scoping and further investigations was discussed, and further clarifications were provided on 27 November 2023.
- 1.15. Neil Maylan, Senior Historic Environment Planning Officer at Cadw was also invited to a meeting, but instead provided initial advice via email on 9 November 2023, in which the study area for the stage 1 of the settings assessment was discussed, with 5km buffer recommended (this is included in Annex 6 of this report).

Archiving

- 1.16. Following the submission of the final report, the report will be deposited within the archive at the National Museum for Wales, Amgueddfa Cymru, as well as lodged with Heneb for inclusion within the HER and the RCAHMW. This report will be deposited in line with the 'Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)' (The Welsh Archaeological Trusts 2022).

2. METHODOLOGY

Data collection, analysis, and presentation

- 2.1. This assessment work completed to date has been - and that yet to be completed will be - informed by a proportionate level of information sufficient to understand the archaeological potential of the Site, the significance of identified historic assets, and any potential development effects. This approach is in accordance with the provisions of PPW (2024), TAN 24 (2017), and the guidance issued by ClfA (2020). The data has been collected from a wide variety of sources, summarised in Table 2.1.

Source	Data
Cadw	Current information relating to designated historic assets, e.g., World Heritage Sites, Listed Buildings, Scheduled Monuments, Registered Parks and Gardens, and Registered Battlefields.
Heneb The Trust for Welsh Archaeology: Gwynedd Archaeological Trust Historic Environment Record (HER)	Heritage sites and events records, and other spatial data supplied in digital format (shapefiles) and PDF. HER Enquiry Reference Number: HER1914
National Monuments Record of Wales (held by RCAHMW)	Database of additional archaeological sites, historic buildings, etc. held by the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW).
Archifau Ynys Môn/Anglesey Archives	A search of the archives catalogues was conducted which revealed potential documents relating to the Site.
Natural Resources Wales (NRW) LiDAR data	LiDAR imagery and point cloud data, available from Natural Resources Wales (NRW) website.
Aerial Photographs	Aerial photographs curated by the Central Register of Aerial Photographs for Wales
Portable Antiquities Scheme (PAS)	Data regarding findspots with the study area
Natural Resources Wales (NRW) Landmap data	Dataset focusing on archaeological and historical sites and how they relate to each other and to the surrounding historic landscape.
National Library of Wales, Envirocheck, National Library of Scotland & other cartographic websites	Historic (Ordnance Survey and Tithe) mapping in digital format.
British Geological Survey (BGS) website	UK geological mapping (bedrock & superficial deposits) & borehole data.
Grey literature	Reports and research documents of relevant sites in and around the study area, in particular a recent PhD located additional archaeological sites within the Site via, aerial photographs, LiDAR and geophysical survey (Owen 2023).

Source	Data
Site visit	An inspection of the Site and its surrounds

Table 2.1 Key data sources

- 2.2. Following the agreed methodology and scope of the WSI (Cotswold Archaeology 2023), a 1km study area, measured from the boundaries of the Site, was considered sufficient to capture the relevant HER and RCAHMW data, and provide the necessary context for understanding archaeological potential and heritage significance in respect of the Site. However, relevant historic assets and archaeological remains beyond the 1km study area were also considered. In addition, the cable corridors are discussed within the study area of all Site areas within Section 3 of this assessment.
- 2.3. All the spatial data held by the HER and RCAHMW – the primary historic data repository – for the land within the study area, was requested. The records were analysed and further refined to narrow the research focus onto those of relevance to the present assessment. Not all HER and RCAHMW records are therefore referred to, discussed, or illustrated further within the body of this report, only those that are relevant. These are listed in a cross-referenced gazetteer provided at the end of this report (Annex 2) and are illustrated on the figures accompanying this report.
- 2.4. A 5km study area was agreed with Cadw to form the initial study parameters for capturing designated historic assets for the ‘setting assessment’ (see below). This allowed for initial filtering exercise to ensure that designated (or non-designated) historic assets located further afield from the Site boundaries could be captured and reviewed (including visited on site).
- 2.5. A Site visit was undertaken in July 2023 in clear and dry weather conditions. The primary objectives of the site visit were to assess the Site’s historic landscape context, including its association with any known or potential historic assets, and to identify any evidence for previous truncation of the on-site stratigraphy. The Site visit also allowed for the identification of any previously unknown historic assets within the Site, and assessment of their nature, condition, significance, and potential susceptibility to impact. The wider landscape was examined, as relevant, from accessible public rights of way.

LiDAR imagery

- 2.6. Existing Natural Resources Wales data was analysed with the specific aim of clarifying the extent any potential archaeological remains.
- 2.7. LiDAR DTM and DSM data was obtained from the Lle Geo-Portal. The data was available at 1m resolution, for the extent of the study area. The data used is from 2021. The Lidar files contain British National Grid as the “native” coordinate reference system. Where necessary, the data was combined into a mosaic raster dataset using Esri ArcGIS 10.5.1 and exported as a TIF.
- 2.8. The resulting TIFs were then processed using Relief Visualisation Toolbox (RVT) (Kokalj *et al.* 2019 and Zakšek *et al.* 2011) to create a number of visualisations including a DEM, hillshade, positive and negative openness, multi-hillshade and local relief model following Historic England guidelines (Historic England 2010) and guidance in *Airborne Laser Scanning Raster Visualisation: A guide to good practice* (Kokalj & Hesse 2017). The parameters were set to those appropriate for the topography of the area.
- 2.9. The output images from the RVT software were then imported into the ArcMap 10.5.1 where further settings manipulation was undertaken to enhance the visualization for archaeological feature detection.
- 2.10. Both DSM and DTM formed the basis within the desk-based assessment, although DTM is illustrated on Figs. 18 to 26.

Assessment of heritage significance

- 2.11. The value of historic assets is best defined by the Cadw guidance, ‘Conservation Principles’ (2011), which describes value as a combination of heritage values: **i)** evidential (archaeological) value, **ii)** historical (illustrative and associative) value, **iii)** aesthetic value, and **iv)** communal value. Further detail of this approach, including the detailed definition of those values, as set out, and advocated, by Cadw, is provided in Annex 1 of this report.

Assessment of potential development effects (benefit and harm)

- 2.12. The present report sets out, in detail, the ways in which identified susceptible historic assets might be affected by the proposed development, as well as the anticipated extent of any such effects. Both physical effects, i.e., resulting from the direct truncation of archaeological remains, and non-physical effects, i.e., resulting from

changes to the setting of historic assets, have been assessed. Regarding non-physical effects or 'settings assessment', this has been undertaken in accordance with the approach outlined in the 'Setting of Historic Assets in Wales' document (Cadw 2017a). Further detail of this approach, including the detailed definition of those values, as set out, and advocated, by Cadw, is provided in Annex 1 of this report.

- 2.13. The 'Conservation Principles' states that: 'The assessment of the degree of harm to a historic asset needs to consider the impact of any proposal on its heritage values' (Cadw 2011, 31). 'Heritage Impact Assessment in Wales' states that, 'Your heritage impact statement will need to demonstrate that you have considered the potential impact of you preferred approach. You will need to show how your proposed work will sustain or enhance the significance of your historic asset, including potential benefits and any harm' (Cadw 2017b, 10).

The setting of historic assets

- 2.14. This assessment has been undertaken in accordance with the approach outlined in the publication 'Setting of Historic Assets in Wales' (Cadw 2017a). This provides guidance on setting and development management, including the assessment of the implications of proposed development. The guidance reiterates that 'the setting of a historic asset is the surroundings in which a historic asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral'.
- 2.15. All historic assets have a setting, and features of a setting may make a positive or negative contribution to significance and may affect the appreciation of the asset. They can remain neutral. The extent and importance of setting is often expressed by reference to visual considerations but can also comprise other elements which contribute to the ways in which a historic asset is experienced, including factors such as noise, vibrations, dust, or other pollutants; spatial associations; the rarity of comparable survivals of setting, and associative relationships between historic assets.
- 2.16. A staged approach is undertaken for assessing the implications of development proposals. Stage 1 is to consider the site context, and whether, from a heritage point of view, there are other reasonable alternatives that should be preferred for

development. In addition, this step identifies the historic assets affected, and the aspects of their settings which would be affected by the proposed development.

2.17. Stage 2 is to assess whether, how, and to what degree, these settings make a positive contribution to the significance of the historic asset(s), i.e., 'what matters and why'. This includes a consideration of the key attributes of the historic asset itself, and then considers:

- The physical surroundings of the asset, including its relationship with other historic assets; and
- The way in which the asset is appreciated.

2.18. Stage 3 (where appropriate) is to assess the effect of the proposed development on the significance of historic assets through consideration of the key attributes of the development in terms of its:

- Location and siting;
- Form and appearance;
- Additional effects; and
- Permanence.

2.19. Stage 4 is to, if necessary, consider options to mitigate or improve the potential impact of a proposed change or development on that significance.

2.20. The settings assessment presented in this report includes consideration of Stage 1 to 3, which are the steps normally undertaken to inform the planning process. Stage 4 is carried out when it is considered necessary to specifically design or redesign a scheme to take historic assets into account. This is not considered necessary in this case.

Limitations of the assessment

2.21. This is a preliminary heritage assessment to inform the submission of the PIER and is principally a desk-based study and has utilised secondary information derived from a variety of sources, only some of which have been directly examined for the purpose of this assessment. The assumption is made that this data, as well as that derived from secondary sources, is reasonably accurate. The records held by Cadw, Heneb HER, and RCAHMW are not a record of all surviving historic assets, but a record of the discovery of a wide range of archaeological and historical components of the historic environment. The information held within these repositories is not complete

and does not preclude the subsequent discovery of further elements of the historic environment that are, at present, unknown.

2.22. The bulk of the research for this assessment was carried out before the PIER boundary was confirmed, and therefore there will be additional research and data gathering to finalise this assessment in the future. These gaps in the data will be reconciled for the DCO application, elements of research to be added are:

- The Archifau Ynys Môn/Anglesey Archives for historic mapping (although 19th century Ordnance Survey mapping and Tithe Maps were able to be reviewed);
- Certain sections of the site were visited, and therefore additional site visits will require to be undertaken;
- Further analysis with regard to Historic Landscape Characterisation of the Site, developing and refining the data provided by DataMapWales (2017) to comprise a more nuanced set of character types; and
- Additional HER searches for where full coverage of the Site and study area was not originally included in the 2km initial search area before the PIER Site boundary had been finalised.

2.23. The best resolution of digital terrain model LiDAR Imagery of the Site, available from Natural Resources Wales, is 1m. The quality of the data is good across the Site.

2.24. Historic Tithe Maps of the Site depict landscape in large blocks, rather than individual fields. It would seem the creators of the Tithe Maps have combined a number of fields into one parcel in order to assess them in the first half of the 19th century. Therefore, the historic Tithe Maps have a limitation in the detail and information depicted on them.

2.25. Data was obtained from the PAS providing the location of individual findspots of artefacts located as chance surface finds or by a metal detector survey. The data provided did not come with a full grid reference giving an accurate location of the artefacts, but rather a basic grid reference for an Ordnance Survey grid square suggesting that an artefact's location is within 1sq km of the grid reference. Therefore, there is a limitation on the accuracy of data from the PAS.

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- 2.26. The Highway Works as part of the Project do not include a 1km study area to capture all relevant HER data around them. This was due to the change in the scheme from the initial HER search.
- 2.27. The walkover surveys conducted within the study area in July 2023, were undertaken in dry and clear weather conditions. Access was afforded within the Site, although such observations are limited since archaeological remains can survive below-ground with no visible surface indications of their presence. It should be noted that the Site in its entirety was not surveyed during this visit, but rather select field plots were visited. It is possible that unknown archaeological remains may be present within the Site, and the presence of modern infrastructure may possibly have inhibited identification of any possible upstanding remains. There was also sufficient access to historic assets to assess likely impacts upon the significance of the assets due to changes to their setting.

3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Landscape context

- 3.1. The Site is located within the northern area of Anglesey in three distinct areas covering an area totalling c.1284ha. Maen Hir North occupies an area to the west of Amlwch and Parys Mountain covering c.377ha, Maen Hir Central occupies an area that borders Llyn Alaw to the north and east covering c.317ha, Maen Hir South A is located c.380m to the north-east of Llanerch-y-medd covering c.191ha, and Maen Hir South B occupies an area c.1.5km to the east of Llanerch-y-medd covering c.399ha.
- 3.2. The Site is located in a rural setting which its boundaries formed by a mixture of hedgerows, ditches, fence lines and cloddiau (drystone/boulder walls with earth bank). The majority of the Site is bordered by an open pastoral landscape that is dotted with numerous farmsteads and small hamlets.
- 3.3. The study area is primarily agricultural, typified by small to large pastoral fields interspersed with pockets of woodland and scattered farmsteads. A more 'built-up' character exists within the centre and to the south, north and west of the Site, where the landscape is dominated by residential and industrial development within the towns/villages of Amlwch, Llanerch-y-medd and Llanfechell.

Landscape character

- 3.4. The Site is situated within four landscape character areas (LCA) as defined by the Anglesey Landscape Strategy (Isle of Anglesey County Council 2011). The areas are summarised below.

North West Anglesey LCA

- 3.5. The North West Anglesey LCA, within which parts of Maen Hir North and Maen Hir Central are located, is characterised as an extensive drumlin field. The drumlin has been formed from deposition of boulder clay following the retreat of the last ice age. Interspersed with this landform are a number of hard rocky features such as Mynydd-y-Garn and Mynydd Mechell. The majority of the landscape is characterised by improved grassland, especially in the drumlin field. However, there are a number of marshy grasslands amongst the drumlins as well as small, scattered areas of scrub (Isle of Anglesey County Council 2011). The LCA also contains the largest water body on the island, Llyn Alaw, which is a reservoir and of importance to breeding birds and wintering wildfowl. The Afon Alaw is associated with the Mabinogion, a legend central to Welsh culture (Isle of Anglesey County Council 2011).

Amlwch and Environs LCA

- 3.6. The Amlwch and Environs LCA, which the majority of Maen Hir North is located within, is characterised by the historic town of Amlwch, and includes the northern coastline between Bull Bay and Point Lynas. The port of Amlwch owes its development to the extensive mineral extraction in the 18th and 19th centuries at Parys Mountain inland. Modern windfarm development has been an increasing feature within this area, the juxtaposition of disused windmills to modern windfarms clearly reflects the importance of wind energy in this part of the island (Isle of Anglesey County Council 2011).

Dulas Bay Hinterland LCA

- 3.7. Sections of Maen Hir South A and B are located within the Dulas Bay Hinterland LCA. This area is focused upon the sandy, shelving coastal landscape of Dulas Bay, where low tide exposes the extensive sandy beach of Traeth Dulas (Isle of Anglesey County Council 2011). However, further inland are areas of relict landscape archaeology associated with the 19th century encroachment on common land, with a resultant clustered settlement pattern (Isle of Anglesey County Council 2011).

West Central Anglesey LCA

- 3.8. The majority of Maen Hir South A and B is located within the West Central Anglesey LCA. This is a large area of the rural heartland of Anglesey. The topography is generally undulating which reflects its underlying geology, particularly the Coedana Granites. This results in a number of rocky outcrops that typify the landscape of this part of the island. These, together with small areas of semi-natural habitats – hedges, trees, mires – are scattered throughout the area within a matrix of improved agricultural grassland (Isle of Anglesey County Council 2011).

Geology within the Site

- 3.9. The overall geology within the Site will be described as four individual areas; Hir North, Maen Hir Central and Maen Hir South.

Maen Hir North

- 3.10. Maen Hir North is situated over three differing types of natural geology, with the majority situated within an area of New Harbour Group Mica schist and psammite, metamorphic bedrock formed between 635 and 541 million years ago during the (BGS 2024). The southern parts of the area are located over South Stack Formation Psammite and pelite formed in the Ediacaran period, and Ordovician Rocks

mudstone and sandstone, interbedded, sedimentary bedrock formed between 485.4 and 443.8 million years ago during the Ordovician period (BGS 2024).

Maen Hir Central

- 3.11. Maen Hir Central is located within area of Ordovician mudstone and sandstone (BGS 2024).

Maen Hir South A and B

- 3.12. Maen Hir South A occupies an area of Ordovician Rocks, a mudstone and sandstone (BGS 2024). The southern part of the parcel occupies a raised area which comprises Ordovician Rocks (sandstone and conglomerate) and Central Anglesey Shear Zone and Berw Shear Zone (Schist and mica) (BGS 2024).
- 3.13. Maen Hir South B overlies four differing types of bedrock and will be summarised from north to south. The northern most bedrock within this area is Coedana Complex Hornfel, A metamorphic bedrock formed between 635 and 541 million years ago during the Ediacaran period (BGS 2024). The next is Coedana Granite formed in the Ediacaran period, and a thin band of Central Anglesey Shear Zone and Berw Shear Zone schist and hornblende. The last bedrock is a Central Anglesey Shear Zone and Berw Shear Zone schist and mica, A metamorphic bedrock formed between 635 and 508 million years ago during the Ediacaran and Cambrian periods (BGS 2024).

Superficial geological deposits

- 3.14. The majority of the Site contains known recorded Devensian Diamicton Till. This is a sedimentary superficial deposit formed between 116 and 11.8 thousand years ago during the Quaternary period. Till is defined as unsorted and unstratified drift, generally over consolidated, deposited directly by and underneath a glacier without subsequent reworking by water from the glacier. It consists of a heterogenous mixture of clay, sand, gravel, and boulders varying widely in size and shape (BGS ND).
- 3.15. Small patches of a superficial alluvial clays, silt, sand and gravel, formed between 11.8 thousand years ago and the present during the Quaternary period (BGS 2024), are located within lowland areas of Maen Hir Central, particularly around and to the south-west of Llyn Alaw, where streams/rivers the flow into and out of the reservoir.
- 3.16. Smaller patches of Devensian Glaciofluvial deposits of sand and gravel, a sedimentary superficial deposit formed between 116 and 11.8 thousand years ago

during the Quaternary period (BGS 2024), are located within Maen Hir Central and South.

Soil sequence within the Site

- 3.17. A number of trial trench evaluations within the study area can provide an indication to the thickness and character of the soil sequences and expected natural geology substrates. The soil sequences are summarised below.

Maen Hir North

- 3.18. A trial trench evaluation to the north of the Site (Fig. 4: **E2**) recorded a topsoil and subsoil matrix measuring between 0.27m and 0.76m in thickness overlying a natural geology comprising a pale yellow-brown silty clay (Wessex Archaeology 2007).
- 3.19. A trial trench evaluation located c.70m to the north of the Site (Fig. 4: **E3**) recorded a topsoil and subsoil matrix measuring between 0.25m and 0.5m in thickness, overlying a natural geology comprising a light orangey yellow silty clay with frequent inclusions of schist (Wessex Archaeology 2013b).

Maen Hir Central

- 3.20. An evaluation carried out as part of the North Wales Connection Project Wylfa to Pentir, Anglesey and Gwynedd project (Fig. 5: **E15**) passed through the north-eastern side of Maen Hit Central. Trenches in this part of the Site recorded a topsoil measuring between 0.2m and 0.3m in thickness overlying subsoil measuring 0.05m in thickness. The natural geology was established a depth between 0.25m and 0.3m below ground level (Cruse 2018).

Maen Hir South A and B

- 3.21. Test pitting within the Site (Fig. 5: **E19**) recorded a topsoil measuring between 0.22m and 0.32m in thickness, overlying a thin subsoil measuring 0.06m in thickness. The archaeological horizons were encountered between 0.24m and 0.38m below the ground surface (Hopewell *et al.* 2007).
- 3.22. An excavation located within the southern part of the Site (Fig. 5: **E21**) recorded a ploughsoil and subsoil matrix measuring between 0.42m and 0.48m in thickness, overlying a natural geology comprising a compact reddish-brown clay with some grey banding (C.R. Archaeology 2016).

Designated historic assets

- 3.23. No Listed Buildings, Scheduled Monuments, World Heritage Sites, Registered Parks and Gardens, Registered Battlefields Sites or Conservation Areas are located within the Site.
- 3.24. A total of 193 Listed Buildings, 41 Scheduled Monuments, four Conservation Areas, one Registered Park and Garden (located c.4.6km to the north-west of Maen Hir North), and one Registered Historic Landscape are located within the 5km study area and its wider environs.
- 3.25. These historic assets are listed and summarised in Annex 6 and presented on Figures 2 and 3 (in Annex 5).

Previous archaeological investigations

- 3.26. A total of 196 previous archaeological investigations have been undertaken within the study area, comprising watching briefs, trial trench evaluations, excavations, desk-based assessments, aerial photography surveys, fieldwalking surveys, geophysical surveys and building surveys.
- 3.27. This section will summarise the results of relevant previous archaeological investigations within the study area. Those previous archaeological investigations that recorded no archaeological remains, or post-medieval and modern remains at a distance from the Site will be omitted from this assessment.
- 3.28. The below summaries of relevant previous archaeological investigations will be discussed with regard to their proximity to specific areas of the Site (i.e., North Maen Hir, Central Maen Hir and South Maen Hir A and B), along with any specific cable route easements in proximity to those areas as well.

Maen Hir North

- 3.29. A total of six relevant previous archaeological investigations have been undertaken within Maen Hir North:
- A geophysical survey, trial trench evaluation and a watching brief, culminating in an archaeological post-excavation assessment, were undertaken c.530m to the north of the Site and c.700m to the west of the Highway Works (Fig. 4: **E1**) in 1994. The works recorded very few undated archaeological remains such as a trackway and linear ditches (Gwynedd Archaeological Trust 1994).

- A geophysical survey and a trial trench evaluation were undertaken c.320m to the north of the Site and c.500m to the west of the Highway Works (Fig. 4: **E2**) for the Time Team television programme in 2006/2007. The works recorded a possible Bronze Age burial cairn as well as evidence of a previously recorded Roman defended enclosure (GSB Prospection Ltd 2006; Wessex Archaeology 2007).
- A geophysical survey and evaluation were undertaken c.70m to the north of the Site and c.430m to the north of the Cable Route Corridor (Fig. 4: **E3**) in 2013. The works identified a series of field boundaries of post-medieval and modern in date (Wessex Archaeology 2013a; 2013b).
- A geophysical survey and evaluation were undertaken c.1.2km to the north-east of the Site (Fig. 4: **E4**) in 2015. The works recorded features dating to the Iron Age and Roman periods, based on their form or on their likely relationship to a known complex of Iron Age and Romano-British enclosures at the eastern end of the site (Wessex Archaeology 2015a; 2015b).
- During the 19th century a fragment of a Bronze Age urned cremation burial was recorded c.2.2km to the north-west of the Site (Fig. 4: **E5**).
- An excavation was undertaken c.1.9km to the north-west of the Site (Fig. 4: **E6**) in 2011. The works recorded a prehistoric defended enclosure (Gwynedd Archaeological Trust 2011; 2013).

Maen Hir Central

3.30. A total of five relevant previous archaeological investigations have been undertaken within Maen Hir Central:

- A watching brief was carried out at Llanbabo Church c.320m to the south of the Site and the Highway Works, and c.880m to the south-west of the Cable Route Corridor (Fig. 4: **E7**) and recorded various phases of the church's construction from the 12th century onwards (Geary 1996).
- An evaluation was carried out c.1.6km to the south of the Site and the Highway Works, and c.2km to the south of the Cable Route Corridor (Fig. 4: **E8**) in 2018. The works recorded undated ditches, pits, and postholes, along with post-medieval ridge and furrow (Wessex Archaeology 2018).
- Two metal detector surveys were conducted c.1.5km to the south of the Site on the south side of Llyn Alaw Reservoir (Fig. 4: **E10** and **E11**) in 2023 and recovered medieval and post-medieval artefacts.

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- An evaluation carried out as part of the North Wales Connection Project Wylfa to Pentir, Anglesey and Gwynedd project (Fig. 5: **E15**) in 2017, that passed through the north-eastern side of Maen Hir Central, and passes through the Cable Route Corridor and across parts of the Highway Work areas. The evaluation recorded a large number of features dating from the prehistoric to modern periods (Cruse 2018).

Maen Hir South A

3.31. A small number of previous investigations have been undertaken within and area Maen Hir South A:

- An archaeological excavation was carried out c.740m to the north of the Site, but within the Cable Route Corridor and c.170m to the west of the Highway Works (Fig. 4: **E9**) in 2022. The excavation recorded a total of five pits, seven post holes, 15 ditches, one gully and three plough marks. No finds of archaeological value or reliable dating sources were identified. The features indicated multiple phases of activity on the site related to agricultural activity prior to the 19th century. A small amount of discrete evidence for possible domestic activity and structural remains was also identified (Archaeology Wales 2022).
- An excavation undertaken within the southern area of Maen Hir South A in 2020 (Fig. 5: **E14**) recorded two boulders bearing prehistoric cup marks. One of the boulders has also been tentatively identified as the capstone of a chambered tomb (Kenny 2020).

Maen Hir South B

3.32. A large number of previous archaeological investigation have been undertaken within Maen Hir South:

- A metal detector survey carried out c.1.5km to the north of the Site, c.1km to the north of the Highway Works and c.1.6km to the north-east of the Cable Route Corridor (Fig. 5: **E12**) recorded a possible Bronze Age copper alloy ingot.
- A fieldwalking survey c.800m to the west of the Site and c.560m to west of the Highway Works (Fig. 5: **E13**) in 2018 recorded worked flint representing Mesolithic activity (Owen 2018).
- The evaluation previously discussed carried out as part of the North Wales Connection Project Wylfa to Pentir, Anglesey and Gwynedd project (Fig. 5:

E15) in 2017 (Cruse 2018), passed through the north-eastern area of Maen Hir South B, and crosses some of the routes of the Highway Works and is c.400m to the north-east of the Cable Route Corridor.

- A metal detecting c.900m to the east of the Site and the Highway Works (Fig. 5: **E16**) in 2004 recorded a Late Bronze Age gouge.
- An excavation was undertaken within the north-eastern area of the Site (Fig. 5: **E17**) in 2016. No archaeological features were recorded, but a number of pieces of unstratified worked flint were recovered suggesting there was background prehistoric activity in the area (C.R. Archaeology 2016).
- A field visit was undertaken on the route of the Highway Works (Fig. 5: **E18**) to assess a standing stone. It was concluded the stone could be a possible Bronze Age standing stone or a probable post-medieval gate post.
- In 1988 a geophysical survey, a metal detecting survey in 2006 and a test pitting in 2007 were undertaken within the centre of the Site (Fig. 5: **E19**). The metal detecting survey recorded metal artefacts such as Roman coin dating to the 3rd century, medieval cauldron and pot leg fragments, and post-medieval buckle. Whereas the geophysical survey (Kelly 1988; Hopewell *et al.* 2007) recorded a prehistoric sub-circular enclosure with clear indications of internal settlement.

Excavations were carried within the Site and study area for the Rhosgoch to Stanlow Shell Oil Pipeline (Fig. 4 and 5: **E20**) between 1972 and 1974 recorded a number of features including burnt mounds, and a possible area of medieval settlement (White 1977).

Palaeolithic and Mesolithic (500,000 to 4,000 BC)

Background

- 3.33. Human activity throughout the Palaeolithic period was characterised by small bands of hunter-gatherers moving through the landscape and exploiting resource, with findspots focused on the riverside locations within the river terrace gravels (Wymer 1999). Palaeolithic sites in Wales are rare in comparison to the lowlands and river valleys of south and east England that appear to have been more favourable for habitation (Dyfed Archaeology 2023c).
- 3.34. During this period Anglesey was not an island and the surrounding Irish Sea and Menai Strait were low-lying habitable landscapes which were permeated by rivers and streams and likely heavily wooded, as the British Isles formed one landmass that was joined with mainland Europe. A notable example of prehistoric landscape

reconstruction was recorded during excavations at Parc Cybi, Holyhead (GAT 2020). At the end of the glacial period a relatively open landscape initially prevailed, prior to the expansion of birch dominated woodland in response to the warmer climate changes in the Holocene period. The woodland subsequently became denser, with hazel and willow replacing the previously dominant birch scrub/woodland. Birch grew around the edge of marshes in the Mesolithic period and alder and willow were also common, forming carr woodland around the marshes (GAT 2020).

- 3.35. The warmer climate and ensuing changes in vegetation after the end of the Last Ice Age allowed the Mesolithic hunter-gatherers to exploit both land and marine resources, with settlement perhaps focused in coastal areas and river valleys (Dyfed Archaeology 2023a). By the Mesolithic period most of the landscape was covered by dense woodland with ferns beneath the trees and hazel. The environmental evidence recorded at Parc Cybi, Holyhead, suggested the Mesolithic make-up of the woodland was varied, consisting largely of hazel, birch, alder and willow, but a sample from the edge of a marsh indicated oak (GAT 2020).
- 3.36. The distribution map of known Mesolithic sites in Wales shows a concentration of sites in coastal locations, particularly along the north and south coasts, indicating that the Welsh shoreline area offered an abundant source of food and other materials. The well-known coastal Mesolithic settlement comprising postholes and 5000 pieces of worked flint were recorded beneath a Bronze Age cairn at Trwyn Du c.15km to the south-west of the Site (not reproduced) (Dyfed Archaeology 2023b).

Evidence of the Palaeolithic and Mesolithic

- 3.37. Evidence of the Palaeolithic is not recorded within the Site or the study area.
- 3.38. Evidence for the Mesolithic period is not recorded within the Site, but findspots of worked flint dating to the period are recorded within the study area.
- 3.39. Three flint blades dating to the Mesolithic were recovered as surface finds along the boundary of the Site and the northern shore of the Llyn Alaw Reservoir (Fig. 7: 1). Whilst the reservoir was created in 1965, it flooded an area of pre-existing marshland that surrounded the course of the river Afon Alaw. It is uncertain whether this marshland was present in the Mesolithic period, but nonetheless a marshland area would have been suitable for Mesolithic people to exploit for natural resources and sustenance, which could explain the presence of worked flint nearby.

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- 3.40. In addition, fieldwalking c.740m to the west of Maen Hir South B (Fig. 8. 150): recorded 20 pieces of worked flint, some of which were exhibiting blade technology which is prevalent in Mesolithic flintwork (Owen 2018). The plotting of the pieces of worked flint suggests a concentration within the field that was surveyed, indicating potential prehistoric settlement within this area.

Summary

- 3.41. In summary, it is anticipated that potential further evidence of the Mesolithic period within the Site will likely comprise findspots of worked flint, either as unstratified objects located within the topsoil and subsoils, or as residual artefacts within later archaeological features. This is based on the known concentrations of Mesolithic settlement sites around the coast of Anglesey, illustrating a preference for such Mesolithic communities to focus upon areas where natural resources can easily be exploited. However, the presence of a former marshland within with footprint of the Llyn Alaw Reservoir may indicate this area could have been attractive enough for Mesolithic people to temporarily settle around its edges in order to exploit its resources.

Neolithic (4,000 to 2,400 BC)

Background

- 3.42. The Neolithic in Wales is characterised by a gradual transition from hunter-gatherer lifestyle to more settled societies concerned with agriculture and pastoralism. Archaeological sites and monuments from this period tend to be associated with funerary and ritual activities, rather than domestic settlement which may have involved ephemeral sites which have left little archaeological evidence (Burrow 2010). It was during this period that large swathes of land were deforested to allow for the farming of the land. The ensuing clearing of woodland and forests for farmland also changed the landscape character by allowing the movement of soil downhill into valley bottoms, which would have otherwise been held in place by vegetation. Thick layers of colluvium have subsequently built up within valley bottoms making them, in some cases, shallower and sealing prehistoric landscapes beneath them. The Neolithic period is also characterised by the appearance of built monuments in the landscape, such as henges, cursus and long barrows, and chambered tombs (such as the Scheduled Maen Chwyf chambered tomb within Maen Hir South A), much of it of national and international significance.

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- 3.43. Pollen samples recorded at Parc Cybi, Holyhead, suggests the buried soil at the edge of marshland, which was exposed in the Bronze Age, showed that the landscape remained densely wooded with very little evidence for anthropogenic disturbance to the vegetation (GAT 2020). However, traces of erosion and burning were suggestive of at least small areas of woodland clearance in the Neolithic period. In addition, even before the Neolithic period the presence of heather pollen suggests some open areas with heath developing on poorer soils (GAT 2020). Evidence of charred plant remains were recorded at Parc Cybi showing that cereals were cultivated in the Neolithic period. The small number of grains from Neolithic contexts suggests that relatively little grain was used, and the fields may have been small in size (GAT 2020).
- 3.44. Evidence of the Neolithic period is both recorded within the Site and the study area.

Within the Site

- 3.45. A series of Neolithic pits were recorded within Maen Hir Central (Fig. 4: **E15**; Fig. 7: **2**). Three features which were interpreted as pits and a ditch were recorded, and the presence of middle Neolithic ceramic and burnt bone within a heavily truncated pit may indicate that this, at least, was a disturbed funerary pit for an urned cremation burial (Cruse 2018). The discovery, therefore, of at least two possible middle Neolithic pits, one of which may have contained an urned cremation burial, and a former field boundary indicated that the Site may have potential for further similar archaeological remains, potentially including funerary deposits (Cruse 2018).
- 3.46. A Scheduled Neolithic chambered tomb named Maen Chwyf is located within the northern part of within Maen Hir South A (Fig. 3: **D9**; Fig. 7: **7**). The burial chamber is formed by a large stone 3.6m in length, 2.1m wide and 1.5m high which rests on other stones which protrude from underneath. A small upright stone 0.5m tall stands to the east of the boulder.

Within the study area

- 3.47. A potential Neolithic field system is recorded c.130m to the east of Maen Hir South B (Fig. 5: **E15**; Fig. 8: **6**) during a geophysical survey. The field system is characterised by a number of magnetic linear anomalies on a broad north-south orientation. These anomalies are divided by established current field boundaries yet underlie them and ergo predate them (Sykes *et al.* 2017). However, these features have not been investigated, therefore whilst they predate the current field systems, they could date anywhere between the prehistoric to medieval periods.

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- 3.48. Two Neolithic pits were recorded c.740m to the north of Maen Hir South A (Fig. 4: **E9**; Fig. 7: **3** and **4**). A shallow oval pit measuring 1m in length, 0.5m in width and 0.1m in depth contained no artefacts, but an environmental sample produced abundant fragmented charcoal and a single fragment of charred hazelnut shell. The hazelnut shell produced a radiocarbon date of 3250-3100 cal BC, placing it towards the middle of Neolithic period (Archaeology Wales 2022). The second pit was of a similar size and contained no artefactual evidence, but an environmental sample produced charcoal and charred hazelnut shells. The hazelnut shells produced a radiocarbon date of 2810-2740 cal BC (Archaeology Wales 2022).
- 3.49. Topographically, these two pit clusters recorded within Maen Hir Central are located on areas of higher ground which overlook the floodplain and course of the Afon Alaw and Afon Goch, which flows out to the north-east at City Dulas.
- 3.50. In addition, the findspot of a Langdale stone axe head was recovered c.420m to the north of Maen Hir South (Fig. 8: **5**) as a surface find.

Summary

- 3.51. The presence of two groups of Neolithic pits at Maen Hir Central and near to Maen Hir South A indicates that sporadic settlement is present within the landscape. The two pit concentrations, a potential chambered tomb and field systems are also located upon higher topography, away from the lowland areas of the surrounding Afon Goch flood plain. Therefore, the sporadic known recorded Neolithic settlement and potential funerary remains are situated within proximity of watercourses, but upon higher drier land in order to settle and exploit the landscape for agricultural purposes.

Bronze Age (2,400 to 700 BC)

Background

- 3.52. The Bronze Age was a period of particular importance on Anglesey with extensive evidence of human activity across the island. Along with the consistent clearing of the landscape of woodland for farming and sporadic farmsteads and settlement, the Early Bronze Age saw funerary activities move inland from the coastal areas with round barrows occupying elevated and prominent landscape positions, such as the Scheduled Pen-y-Morwyd Round Barrow and Bryn Celli Ddu Burial Chamber (Lynch 2000). In addition, the landscape became heavily ritualised during the Bronze Age due to the presence of many standing stones (or maen hir) across Anglesey, for example the Scheduled Lech Golman, Maen Addwyn, Bodewryd Standing Stones in

proximity to the Site. These standing stones are located within prominent locations within the landscape, and some of which share views with one another.

- 3.53. Environmental evidence recorded at Parc Cybi, Holyhead, noted that a few Bronze Age samples contained charred plant remains, but one sample from close to a possible Bronze Age timber roundhouse contained much larger numbers of cereal than the Neolithic samples. It is probable that there were more and larger arable fields in the Bronze Age (GAT 2020).
- 3.54. The evidence for Bronze Age activity is recorded both within the Site and extensively within the study area.

Within the Site

Maen Hir North

- 3.55. Two Bronze Age burnt mounds and metal working sites were recorded within Maen Hir North (Fig. 4: **E20**; Fig. 6: **21** and **20**) during the laying of the Shell pipeline. The two areas comprised fire-cracked stones up to 24cm deep within black soil and charcoal fragments. Site **20** had several features cut into the clay subsoil comprising pits, and postholes. Two small sherds of very friable pottery were found (White 1977; Kenney 2011).
- 3.56. A recent review of aerial photography and LiDAR by a PhD student in 2023 (Owen 2023) recorded a cropmark of a circular feature measuring c.20m in diameter with a central feature or pit measuring 2.5m in diameter (Fig. 6: **146**), located within the northern end of a field close to the road between Amlwch and Rhosgoch within Maen Hir North Parcel. It is likely that this feature is a Bronze Age barrow, and furthermore this the feature is located at the centre of a rise in the landscape affording it a prominent position. This feature was noted on aerial photographs from 1945¹ and 2018 (Google Earth – not reproduced), and potentially remains as very shallow ploughed out burial mound that is present on LiDAR Imagery (Fig. 19).

Maen Hir Central

- 3.57. Bronze age cremation urns were discovered in the 19th century within Maen Hir Central (Fig. 4: **E15**; Fig. 7: **22**). beneath 1.8m of soil (Williams 1876). The urns formed rows and had been subject to the action of fire and contained human remains. A later evaluation in 2018 recorded two Neolithic pits nearby, previously discussed,

¹ Aug 1945 106G/UK_655 4302

one of which may have contained an urn. An earth mound within the parcel was also excavated as an additional trench, which proved to be a natural formation which was augmented by post-medieval activity (Cruse 2018), rather than a mound of a Bronze Age round barrow. However, a geophysical survey undertaken c.90m to the east of these remains (Fig. 7: **60**) recorded a circular anomaly (Sykes *et al.* 2017). Whether this feature is a potential barrow, or remains of a round house, is uncertain as it has not been investigated, but if it is the remains of a barrow then it is likely closely associated with these funerary features. In addition, an undated potential U-shaped enclosure was located in an adjacent field to the west of these features (Fig. 15: **116**) during a geophysical survey (Sykes *et al.* 2017). It could be that this enclosure may be associated with these Bronze Age remains but remains uncertain.

Within the study area

- 3.58. The majority of known recorded Bronze Age activity is located within the study area. Bronze Age archaeological remains will be discussed in terms of which area of the Site they are in proximity to.

Maen Hir North

- 3.59. Round barrows/funerary remains and monuments are located close to the Site' boundary, with the Scheduled Pen-y-Morwyd Round Barrow located c.440m to the north of the Site (Fig. 2: **D29**; Fig. 6: **12**), a stone cist containing a Beaker burial c.500m to the north (Fig. 6: **13**), the ploughed out remains of two barrows c.270m to the north (Fig. 6: **14**) and c.340m to the north (Fig. 6: **35**), another cist burial c.310m to the north (Fig. 6: **18**), and a round barrow c.160m to the west of the Site and c.150m to the west of the Site (Fig. 6: **19**).
- 3.60. The Scheduled Bodewryd standing stone is located within a field that is surrounded by the Site on all sides at a distance of c.120m from the redline boundary, but it is also located within the Cable Route Corridor (Fig. 6: **16**). It stands to a height of 4m on a slight rise in undulating grassland (Smith 2003). An additional Bronze Age standing stone is located c.710m to the north of the Site but c.35m west of an easement route (Fig. 6: **38**).
- 3.61. A series of additional ring ditches were recorded on aerial photographs by the HER c.1.7km and c.1.9km to the north-west of the Site (Fig. 6: **8**, **9** and **10**), indicating that further potential round barrows/funerary monuments are located to the north-west.

3.62. In addition to the two burnt mounds located within the Site previously discussed, two further burnt mounds are also recorded within the study area. A possible burnt mound located within a 'boggy landscape' was recorded during a geophysical survey c.350m to the west of the Site (Fig. 6: **11**) (Sykes *et al.* 2017). Another possible burnt mound beside a stream was recorded c.170m to the north of the Site (Fig. 6: **17**) (Gwynedd Archaeological Trust 1994). A circular mound is also recorded c.660m to the north of the Site (Fig. 6: **58**) located next to a stream (Gwynedd Archaeological Trust 1994). Whilst this mound has not been investigated to ascertain its character, its stream side setting could also indicate a further burnt mound.

Maen Hir Central

3.63. Two circular cropmarks are located just beyond the boundary of the Site within the western area of Maen Hir Central (Fig. 7: **53** and **56**). Whilst these features are broadly dated to the prehistoric period based on their character, one measures 50m in diameter (Davidson and Flook 1994). Therefore, it could be that these features are Bronze Age round barrows.

3.64. Further afield, the Scheduled Pen-y-Fynwent Barrow is located c.1.5km to the east of the Site (Fig. 2: **D23**; Fig. 7: **23**). The monument measures 14m in diameter and at a height of 0.6m upon an elevated position. A Bronze Age standing stone is located within this central region also, located c.1.7km to the south-west (Fig. 7: **24**).

Maen Hir South

3.65. A small number of Bronze Age monument sites are located within proximity of Maen Hir South A and B. The site of a Bronze Age burnt mound or metal working site was recorded c.1.4km to north (Fig. 4: **E20**; Fig. 8: **26**). It was first noticed as a slightly raised dark patch about 120m in diameter covered with small, broken burnt stones, and was partly destroyed by the Shell pipeline and the traffic involved in its construction, before excavation. A small area was excavated to reveal a pit, three postholes and some stakeholes, along with slag and charcoal (White 1977; Kenney 2011). Furthermore, an area of burnt material comprising organic material and heated stones located near to a water source were recorded c.740m to the west of the Site (Fig. 8: **32**). Whilst not dating material was recovered, it is likely the remains of a Bronze Age burnt mound.

3.66. A small number of known round barrows are recorded within the area of Maen Hir South B. A round barrow is located c.520m to the west of the Site (Fig. 8: **36**), the

remains of a circular earthwork measuring c.21m in diameter is recorded c.480m to the north of the Site (Fig. 8: **42**), and a circular cropmark measuring 70m in diameter is recorded c.300m to the west (Fig. 8: **69**) which could be the remains of a large round barrow.

3.67. Standing stones and other potential stone monuments are recorded within this part of the study area, such as a stone cairn on top of a rocky outcrop of Bodafon Mountain c.1.3km to the north (Fig. 8: **29**). However, the most significant monuments are the Scheduled Llech Golman standing stone, located c.60m to the west and south of the Site (Fig. 4: **A**; Fig. 8: **30**), Maen Addwyn located to the immediate east (Fig. 4: **B**; Fig. 8: **41**), and the Llys Einion Standing Stone located c.120m to the north of Maen Hir South A (Fig. 8: **25**). The Llech Golman stands at a height of 2.4m on a rounded ridge within an undulating landscape visible from all around its environs (Smith 2003), Maen Addwyn stands at 3m high, and the Llys Einion Standing Stone stands at a height of 1.6m. In addition, a geophysical survey in an area of the Maen Addwyn standing stone recorded faint undated linear anomalies which may be associated with the stone (Fig. 16: **121**). Four potential standing stones located close to one another are located c.940 and c.1.5km to the west of the Site (Fig. 8: **39**, **40** and **44**), one of which forms a gate post therefore it could be post-medieval in date.

3.68. Two areas of prehistoric rock art are recorded within the southern area of Maen Hir South A (Fig. 8: **62.1** and **62.2**) and c.90m to the east of Maen Hir South A (Fig. 8: **54**). The pieces of rock art were found atop large stone slabs at the end of rock outcrops. Seven or eight shallow cup marks can be seen atop a large slab of stone. There may be possible evidence of the structural placement of stones that may indicate a collapsed burial chamber which is likely to be of Neolithic in date. However, it is also probably that the site may be natural in origin/form (Owen and Wood 2020b; Kenny 2020). The presence of rock art also further indicates that the landscape was settled during the Bronze Age, and that prominent rocky outcrops were the focus of artwork.

3.69. Multiple surface findspots of Bronze Age metalwork are also recorded within this part of the study area, comprising:

- A bronze axe and ingot fragment c.1.3km to the north of Maen Hir South B (Fig. 8: **27** and **28**);
- A gouge c.900m to the east of Maen Hir South B (Fig. 8: **31**);

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- A bronze spear or javelin measuring 10cm long with preserved wood within the socket located c.1.3km to the east of Maen Hir South B (Fig. 8: **33**);
 - An axe-hammer c.360m to the south of Maen Hir South A (Fig. 8: **37**);
 - A Bronze palstave axe head c.1.5km to the south of Maen Hir South B (Fig. 8: **43**).

3.70. A small hoard of Late Bronze Age items was recovered c.1.1km to the south of the Site (Fig. 8: **34**) in 1854. The hoard comprised a leaf shaped razor, tweezers, armband, rings and studs, amber necklace and jet bead (Allen 1896).

Summary

3.71. In summary, the majority of known recorded Bronze Age archaeological remains within the Site and the study area comprise remains associated with funerary activity and ceremonial settlement.

3.72. The assessment has identified that the landscape that the Site occupies is one extensively utilised for funerary monuments, such as round barrows and potential cremation cemeteries, for example urned cremation burials within Maen Hir Central. Traditionally, round barrows are situated upon prominent positions within the landscape where the monument can be widely viewed. However, those known recorded round barrows and circular cropmarks and geophysical anomalies than can be interpreted as round barrows, are positioned both on elevated prominent positions and within lowland areas, particularly those monuments recorded near to Maen Hir North. Therefore, based on this information, there could be addition previously unrecorded round barrows within the Site and the study area.

3.73. The assessment has also noted that the study area contains many Bronze Age burnt mounds and potential features that may be burnt mounds but have yet to be investigated. In addition, all examples of burnt mounds recorded within the study area are situated near to streams or water courses. Therefore, further potential unknown burnt mounds could be present within the Site, in particular within lowland areas around Maen Hir North. Burnt mounds can be interpreted as a Bronze Age phenomenon. It is during this period that an important change in both materials, and probably spiritual culture, that burnt mounds first appear in the archaeological record of northern Europe and the British Isles (Laurie 2003; Loktionov 2013). Their close spatial correlation to finds of Bronze Age metalwork emphasises the theory of their association with materials. However, no metalwork has been recovered from the

recorded burnt mounds. In summary, burnt mounds are widely spread across the British Isles, although the activity, of which they are remnants, is still under discussion. Unquestionably, it comprised an activity requiring the use of hot water or stones, such as cooking (Ó Drisceoil 1988), saunas or sweat lodges (Barfield and Hodder 1987; Hodder 2002), wool processing (Ripper 2002-2003) or brewing beer (EH 2011). Burnt mounds are also thought to be good indicators of settlements, which would be expected nearby, on higher and drier ground up to 50m away (Hodder 1990, 2002).

- 3.74. Multiple standing stones dating to the Bronze Age are recorded within the study area within prominent landscape locations, two of which are Scheduled Monuments. The presence of many standing stones within the landscape illustrates that ritual or religion played an important role in the Bronze Age period. Such standing stones therefore could have been the focus of Bronze Age activity such as settlement, burial or the deposit of objects.
- 3.75. Whilst evidence of settlement dating to the Bronze Age (i.e., roundhouses, ditches, pits and postholes) are not recorded within the study area, burnt mounds are recorded within Maen Hir North, cremation burials were recorded within the Central Maen Hir part of the Site, indicating that Bronze Age settlement is present within the landscape. In addition, multiple findspots have been recorded within the study area comprising worked flint, rock art, worked stone, bronze axes and spears further indicating settlement.

Iron Age (700 BC to AD 43)

Background

- 3.76. The Iron Age on Anglesey is defined by scattered farming settlements punctuated with dominant, defensive sites, with hillforts and related fortifications occupying naturally defensive positions within the landscape, reflecting the wider cultivation of the landscape achieved through larger populations and more effective technology (Longley 2003). In the later Iron Age (about 100 BC) woodland was cleared at an unprecedented rate and some heavier soils were drained and made into farming land. The amount of settlement activity recorded on Parc Cybi, Holyhead, dating to the Middle Iron Age and the number of settlements in the general area suggests that the landscape was open and generally farmed across much of Holy Island (GAT 2020).