

7. Cultural Heritage

Introduction

- 7.1 This chapter considers the likely significant effects on cultural heritage associated with the construction, operation and decommissioning of the proposed Upper Ogmores wind farm. The specific objectives of the chapter are to:
- describe the cultural heritage baseline;
 - describe the assessment methodology and significance criteria used in completing the impact assessment;
 - describe the potential effects, including direct, indirect and cumulative effects;
 - describe any mitigation measures proposed to address likely significant effects;
 - assess the residual effects remaining following the implementation of mitigation.
- 7.2 In the absence of any specific guidance on the preparation of Cultural Heritage Environmental Statement/Environmental Impact Assessment chapters from either Cadw or the Chartered Institute for Archaeologists, this Chapter follows the Chartered Institute for Archaeologists Code of Conduct and the same body's Standard and Guidance for Historic Environment Desk Based Assessments. Details of the methodological approach are described in the Assessment Methodology section below.
- 7.3 The chapter is supported by:
- Appendix 7.1 Archaeological and Heritage Desk Based Assessment
 - Appendix 7.2 ASIDOHLv2 Assessment
- Figures 7.1 - 7.15 are referenced in the text where relevant.

Legislation & Planning Policy

- 7.4 Chapter 4 of this ES deals with Planning Policy and refers to National policies Local policies for the project overall. For consistency and to avoid repetition the Cultural Heritage Chapter simply refers to the policies as being addressed in Chapter 4 and then only refers to specific points/quotes in those policies where necessary to support a particular point in the Cultural Heritage Chapter.

Current Legislation

Scheduled Monuments

- 7.5 The relevant legislation concerning the treatment of scheduled monuments is the Ancient Monuments and Archaeological Areas Act 1979 (HMSO 1979) as amended.

- 7.6 This Act details the designation, care and management of scheduled monuments, as well as detailing the procedures needed to obtain permission for works which would directly impact upon their preservation. The Act does not confer any statutory protection on the setting of scheduled monuments, with this considered as a policy matter in Paragraph 6.5.5 of the Planning Policy Wales (PPW).
- 7.7 The balancing exercise to be performed - between the harm arising from a proposal and the benefits which would accrue from its implementation - is then subsequently presented in paragraph 6.5.5 of PPW.

Listed Buildings and Conservation Areas

- 7.8 Sections 66(1) and 72(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 set out the duties of the Local Planning Authority in respect of the treatment of listed buildings and conservation areas through the planning process.
- 7.9 Section 66(1) of the Act sets out the statutory duty of the decision maker where Proposed Development would affect a listed building or its setting.
- 7.10 The 'special regard' due of the 1990 Act has been tested in the Courts and confirmed to require that 'considerable importance and weight is afforded by the decision maker to the desirability of preserving a listed building along with its setting'.
- 7.11 Section 72(1) of the Act identifies: 'in the exercise with respect to any buildings or other land in a conservation area...special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area'.
- 7.12 Therefore, there is 1) no statutory duty to enhance the character or appearance of a conservation area; the courts have confirmed that development that 'preserves' them is acceptable; and 2) the statutory duty only covers development that is within a conservation area. The 'setting' of a conservation area is addressed by planning policy.
- 7.13 Paragraph 6.5.11 of the Planning Policy Wales transposes s66(1) into national planning policy, with paragraph 6.5.20 doing the same for s72(1) of the 1990 Act.
- 7.14 The balancing exercise to be performed - between the harm arising from a proposal and the benefits which would accrue from its implementation - is then subsequently presented in Paragraph 6.5.11 of PPW.

Historic Environment Act (Wales) 2016

- 7.15 The above two acts have been consolidated by the Historic Environment (Wales) Act 2016 which has three main aims as defined by Cadw:
- a) to give more effective protection to listed buildings and scheduled monuments;
 - b) to improve the sustainable management of the historic environment; and

c) to introduce greater transparency and accountability into decisions taken on the historic environment.

7.16 The new Act is supported by a number of planning guidance documents, a number of which are still in preparation. The Act most specifically provides better safeguards for the protection of Scheduled Monuments, Listed Buildings and Historic Parks and Gardens. It will also include further guidance on place names.

7.17

National Planning Policy

National Policy Statement for Renewable Energy Infrastructure (EN-3)

7.18 National Policy Statement EN-3 sets out the government's approach to nationally significant energy infrastructure projects, including onshore wind farms, and is dealt with in detail in Chapter 4.

Planning Policy Wales

7.19 Planning Policy Wales Edition 9 (PPW) sets out the government's approach to the conservation and management of the historic environment, through the planning process. The PPW is supported by a series of technical advice notes. Technical Advice Note 24: The Historic Environment (TAN24) contains detailed guidance on how the planning system considers the historic environment during development plan preparation and decision making on planning and listed building consent applications.

Scope of Assessment

7.20 The scope of this assessment was to consider if the Proposed Development would result in any significant effects to designated and non-designated historic assets within and beyond the site. It also considered the archaeological potential of the area in question, highlighting any areas of known or suspected archaeological potential and examined if the Proposed Development would result in any significant effects to any buried archaeological deposits.

Consultation

7.21 During the preparation of this Chapter, and the accompanying Appendices, both Cadw and Glamorgan Gwent Archaeological Trust were consulted on the scope of the assessment and the methodologies to be used. During the course of this exercise, the study area for scheduled monuments was extended from the 5km outlined within the Annex of Cadw's 'Setting of Historic Assets in Wales' document to 10km. In addition, GGAT provided a consultation response on 30th October 2018 which, whilst identifying some archaeological potential within the footprint of the Proposed Development, stated that they would recommend this could be mitigated through further archaeological work secured by condition.

Assessment Methodology

Baseline Characterisation

Study Area

7.22 The study area to assess designated historic assets and Registered Landscapes of Outstanding or Special Interest is the site plus a 10km buffer from its boundary. The study area for non-designated historic assets is the site plus a 1km buffer from its boundary.

Desk Study / Field Survey

7.23 The assessment principally involved consultation of readily available archaeological and historical information from documentary and cartographic sources. The major repositories of information comprised:

- Information held by the Glamorgan Gwent Historic Environment Record on known archaeological sites, monuments and findspots within 1km of the Site;
- Information held on the National Monuments Record of Wales held by the Royal Commission on the Ancient and Historic Monuments of Wales;
- Maps and documents held by the Glamorgan Archives and online;
- The National Heritage List for Wales curated by Cadw;
- Aerial photographs held by the Central Register for Aerial Photography in Wales; and
- Records made during a site visit in May 2017 and July 2018.

Assessment Approach

7.24 The criteria for assessing the sensitivity of cultural heritage assets used in this assessment are outlined in Table 1 below. These are adapted from International Council on Monuments and Sites (ICOMOS) guidance on impacts on World Heritage Properties ¹ (2010).

7.25 The basis for the methodology has been drawn from multiple guidance documents relating to EIA and the assessment of setting. First and foremost the Cadw Guidance 'Managing Setting of Historic Assets in Wales' ² and its staged approach to assessment has been followed:

- Stage 1: Identify the historic assets;
- Stage 2: Define and analyse the setting;
- Stage 3: Evaluate the potential impact of change or development; and
- Stage 4: Consider options to mitigate the impact of a proposed change or development.

¹ ICOMOS (2010)

² Cadw (2017)

- 7.26 Finally, whilst not listed as a specific stage within the guidance, a ‘fifth stage’ is outlined within the guidance, which states ‘it is good practice for the results of the assessment to be presented in a written report which is understandable to non-specialist readers’.
- 7.27 It should be noted that it is not a prescriptive methodology and that it forms the basis of advice given by Cadw when responding to consultations. The assessments of setting and significance (and the assessments of effects) must be made with primary reference to the four main elements of significance identified in English Heritage’s Conservation Principles, but there are other elements of setting which may be relevant to varying degrees. In many cases it is also appropriate to consider aspects such as:
- Landscape and topography: The landscape surrounding the heritage asset, including past changes.
 - Routes: Important routes to and from the heritage asset, past and present.
 - Character: The character of the heritage asset and its surroundings, including past changes.
 - Views in/out/across the asset: An assessment of key views, which are a component of the setting of the heritage asset, including past changes.
 - Context: This is described in former English Heritage's Conservation Principles 2008 as a concept which embraces any relationship between a place and other places. It is different from setting, which relates to the surroundings of the asset.
 - As a concept which embraces any relationship between a place and other places. It is different from setting, which relates to the surroundings of the asset.
- 7.28 When assessing the effect of the Proposed Development on the setting and significance of the historic asset it is relevant to consider:
- Cumulative effects: This may include the cumulative effect of the development in conjunction with other developments which are in the planning system, as well as additional effects to baseline conditions.
 - Permanence: The degree to which the proposal will bring about permanent or temporary change
 - Diurnal and seasonal change: Whether the development will be more visible in winter, or whether it would cause light spill.
- 7.29 The following tabular methodology is a guide adapted from ICOMOS guidance on impacts on World Heritage Properties³ with reference to guidance issued by Cadw in relation to impacts on setting and significance. It is intended to be a guide, not a mechanical process, and it is not a substitute for professional judgment. Assessment on the archaeological potential of the site has been carried out in line

³ ICOMOS (2010)

- with the procedures set out in 'Standard and Guidance for Historic Environment Desk-based Assessment' ⁴.
- 7.30 For the purposes of Planning Policy in Wales TAN 24 - The Historic Environment, the historic environment is defined as: *All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and deliberately planted or managed* (para 1.7, Welsh Government 2017⁵).
- 7.31 A historic asset is: *An identifiable component of the historic environment. It may consist or be a combination of an archaeological site, a historic building or area, historic park and garden or a parcel of historic landscape. Nationally important historic assets will normally be designated.*⁶ They may constitute elements (a building, monument, site, place or area) within the wider landscape and may include small components of the wider landscape, such as houses or barns, but may also include larger areas such as areas of parkland or subsurface archaeological deposits. Historic assets can vary widely in character and include designated sites and areas such as World Heritage Sites, conservation areas, registered parks and gardens and heritage coasts, but also places like new towns, historic orchards and canals that may be recognised for their heritage significance.
- 7.32 It is recognised that settings can be multi-layered and combined. Conservation areas containing listed buildings will form part of the setting of those buildings and will have a setting in themselves. Historic towns, which may contain conservation areas, are also recognised as having settings (through policies relating to landscape character).
- 7.33 Assets were visited to ascertain an understanding of the topography, condition, views, landscape surroundings and key features of the setting of the designated assets, including visiting areas overlooking historic settlements and conservation areas and gaining views from and toward scheduled monuments and listed buildings.
- 7.34 The methodology looks first at the heritage significance (= value/sensitivity) of the heritage assets, then at sources of effects, then at factors in the assessment of magnitude of change, and finally at the significance of the effects in EIA terms.
- 7.35 Table 1 below is adapted from the ICOMOS guidance and sets out a guide for the first stage in this assessment, namely an assessment of the significance/sensitivity of heritage assets.

⁴ CifA (2017)

⁵ Welsh Government 2016, Planning Policy Wales TAN 24 The Historic Environment 2017

⁶ Ibid

Table 7.1: Methodology for Assessing the Sensitivity of Heritage Assets

Sensitivity of Receptor	Guideline Criteria
Very High	World Heritage Sites including buildings, urban landscapes or historic landscapes of international value whether designated or not. Extremely well preserved historic landscapes with exceptional coherence and time depth, and areas associated with cultural heritage innovations of global importance.
High	Nationally designated archaeological areas including scheduled monuments and buildings that have exceptional qualities (typically grade I and II* listed buildings), conservation areas containing very important buildings and spaces, and structures of clear national importance. Nationally designated historic landscapes, including Inventory Landscapes and Designed Gardens, and designated areas associated with globally important activities, innovations or people.
Medium	Designated or non-designated historic assets and buildings (typically grade II listed buildings) that have exceptional qualities or associations. Conservation areas that contain buildings that contribute significantly to historic character. Historic townscapes with important historic integrity. Designated special historic landscapes and areas on local registers for their regional or local significance.
Low	Designated or undesignated assets of local importance poorly preserved with limited value. Unlisted buildings of modest quality in their fabric, townscape of limited historic integrity, and robust undesignated historic landscapes that have intangible cultural heritage associations of local significance.
Negligible	Assets with little or no surviving archaeological interest, buildings or urban landscapes of no architectural interest, intrusive buildings, and landscapes with little or no significance or historic interest.

- 7.36 Turning to the sources of effects, the majority of which will be to heritage significance through an effect on setting - the surroundings in which the significance of the asset in question is experienced. These effects can be experienced either during the construction/operation phases, or post-completion.
- 7.37 The magnitude of change is the subject of Table 2, below, which has been adapted from the ICOMOS guidance, and which sets out factors to be used in the assessment, while exercising professional judgement.

Table 7.2: Methodology for Assessing Magnitude of Effects on Heritage Assets

Magnitude of Effect	Guideline Criteria
Major	Total alteration or comprehensive change to setting. Change to most or all key elements or attributes, or major changes that affect associations, visual links and cultural appreciation. Total loss or considerable physical change to a historic asset.
Moderate	Change to many key elements or considerable change to setting that affects the character of the asset or which causes significant change to the setting. Considerable change to cultural appreciation. A physical change or difference to a key element or characteristic.
Minor	Slight alteration to fabric or slight change to setting, including change to key elements leading to noticeable change. Limited change to noise levels, sound quality and access. Change that affects cultural appreciation. A physical change or difference to a key element or characteristic.
Negligible	Very minor change to key physical components or to setting that hardly affect the asset. Very slight change to noise levels, sound quality and access. Slight physical change that does not erode the significance of the historic asset
No change	No change to the historic asset or its setting.

7.38 Table 7.3 presents a matrix for identifying the significance of effects, which assesses the magnitude of the change in relation to the significance (i.e. value/sensitivity) of the historic assets. The matrix is a tool, not a mechanical system in itself, and professional judgement has also been used. Very Large, Large or Medium effects are classed as Significant Effects as per the EIA regulations. Where effects are identified as Medium/Small a combination of professional judgement and interpretation is used to identify whether the effect is significant, by determining whether the effect should be categorised as Medium/Small (significant) or re-categorised as Small (not significant).

Table 7.3: Methodology for Assessing Significance of Effects on Heritage Assets

Sensitivity	Magnitude of change				
	Major	Moderate	Minor	Negligible	No change
Very High	Very Large	Large/ Very Large	Medium/ Large	Small	Neutral
High	Large/ Very Large	Medium/ Large	Medium/ Small	Small	Neutral
Medium	Medium/ Large	Medium	Small	Neutral/ Small	Neutral
Low	Medium/ Small	Small	Neutral/ Small	Neutral/ Small	Neutral
Negligible	Small	Neutral/ Small	Neutral/ Small	Neutral	Neutral

- 7.39 It is important to appreciate that it is the designated historic assets which are the receptors. The setting of these historic assets is complex, and is made up of many components, of which views to or from the asset in question may only be a part. Therefore, in any assessment of the effect on the setting of a historic asset it is important to consider the whole setting of the whole asset, not to concentrate entirely on a single viewpoint that may in itself not represent the full historic significance of the building or feature in question.
- 7.40 It is also important to note that the amount of public access to a site does not have a bearing on whether its setting adds to its historic significance. However, proper evaluation of the effect of change within the setting of a historic asset will usually need to consider the implications for public appreciation of its historic significance. This assessment has been undertaken on that basis.

Baseline Conditions

- 7.41 A comprehensive Archaeology and Heritage Desk Based Assessment along with a comprehensive Assessment of the Significance of the Impact of Development on Historic Landscape Areas on the Register of Landscapes of Historic Interest in Wales (ASIDOHL) have been prepared as baseline supporting documents for this Chapter. These are presented in full at Appendix 7.1 and Appendix 7.2 respectively, and should be referred to for detailed information. Therefore, the baseline conditions outlined below are a summary of those assessments.

Current Baseline

Designated Historic Assets

- 7.42 The baseline for the Site was prepared in July and August 2018 and reflects the site conditions at that time. The report was further updated in July 2020. Figures 7.2a - 7.2c show non-designated historic assets within 1km recorded on the GGAT HER and NMRW.
- 7.43 The site contains three designated historic assets, although none of these are within the footprint of the Proposed Development.
- 7.44 There are a further 284 designated historic assets within the 10km study area. Of these, 57 are scheduled monument (Figure 7.3), 224 are listed buildings (Figure 7.4) and three are registered parks and gardens (Figure 7.5). Of these, 29 scheduled monuments and two listed buildings were within the 10km ZTV (Figure 7.6), with the remainder being provisionally filtered out for further assessment, pending the field visit.
- 7.45 Following the field visit one additional listed building was added to the filtered list for further consideration, this being the grade II* listed Church of St Cynwyd at Llangynwyd. This additional building was selected for further consideration on the

- basis that whilst the building itself was beyond the area of the ZTV, some views of areas within the ZTV towards the Proposed Development included the building.
- 7.46 Following the field visits, the provisional list of 29 scheduled monuments and three listed buildings was further filtered to remove those designated historic assets that whilst within the area of the bare earth ZTV, the field visits confirmed could in no way be adversely affected by the Proposed Development.
- 7.47 Following this process, seven scheduled monuments and one listed building were considered further for assessment (Figure 7.7).
- 7.48 A similar process was undertaken with regards to the Rhondda and Margam Mountain Registered Landscapes of Special Historic Interest (Figure 7.8). Here, the bare earth Zone of Theoretical Visibility has been used to identify those historic landscape character areas (HLCAs) which make up the Registered Landscape areas and which have entire or partial visibility of the Proposed Development. All HLCAs which lie completely outside of the ZTV have been discounted from the assessment, on the basis they will not experience any impacts as a result of the Proposed Development. Figure 7.9 identifies those HLCAs which will be considered further within this assessment, with Figures 7.10a and 7.10b identifying those parts of the HLCAs which have entire or partial visibility of the Proposed Development.
- 7.49 An ASIDOHL2 report has been prepared to discuss these effects in detail included as Appendix 7.2).

Non-Designated Historic Assets

- 7.50 There are four known non-designated historic assets within the site although none of these are within the footprint of the Proposed Development. There are a further 85 recorded on the HER within 1km of the site and a further 136 recorded on the NMRW.
- 7.51 Of those within the site, three are for possible later prehistoric features although the HER record for one states it is a natural feature, one is recorded as probably being mis-interpreted as being a later prehistoric feature and the third is recorded as being a 'near destroyed' cairn. The fourth known non-designated historic asset within the site is a linear earthwork of unknown date.
- 7.52 The Archaeology and Heritage Desk Based Assessment identified that the site has a moderate to low potential to contain archaeological deposits of very high, high or medium importance from the later prehistoric, Roman and early medieval periods, and a low potential to contain archaeological deposits of very high, high or medium importance from the early prehistoric, medieval, post medieval, industrial and modern periods.
- 7.53 The desk based feasibility assessment for the preliminary grid route identified that there are five known non-designated historic assets along the line of the proposed

grid connection route and a further 63 recorded on the GGAT HER and 13 additional sites recorded on the NMRW within 300m.

Future Baseline.

- 7.54 In the event that the Proposed Development does not progress (the 'do nothing' scenario), any archaeological deposits with the site and likely to remain undisturbed and thus any effects will be neutral. Furthermore, there will be no changes to the setting of any designated historic assets, and thus any effects will be neutral.

Likely Significant Effects

Construction Effects

- 7.55 The Proposed Development is for three wind turbines up to a maximum blade tip height of 130m (turbines 1, 2 and 6) and four wind turbines up to a maximum blade tip height of 149.9m (turbines 3, 4, 5 and 7) and an energy storage facility, along with associated infrastructure including access tracks. The Proposed Development also includes works to approximately 3.5km of the existing track through the Mynydd Ty-isaf forest to the north west of the Site to enable it to be used for turbine delivery. As noted above, although subject to a separate planning application, the preliminary route of the grid connection which is likely to be c.19km in length has also been assessed.

Identification of Potential Effects

- 7.56 Potential construction effects could result from ground reduction works associated with the groundworks required to achieve the ground level necessary for construction of the Proposed Development and from the excavation of pits for the overhead line equipment for the grid connection.
- 7.57 These activities could result in the removal of potential archaeological remains but the desk based assessment considered the likelihood of archaeological remains being present on the Site and along the preliminary grid connection route to be low to moderate.
- 7.58 Potential indirect effects on the setting of designated and non-designated heritage assets could arise during the construction of the Proposed Development and the grid connection.

Physical Effects - archaeology

- 7.59 There are no designated historic assets with archaeological interest within the footprint of the Proposed Development nor within the preliminary grid connection route. Accordingly, the Proposed Development will not have a direct effect on any designated historic asset with archaeological interest during the construction

phase and there will be no physical change to any designated historic assets with archaeological interest.

- 7.60 There are no known non-designated historic assets with archaeological interest within the footprint of the Proposed Development and five within the preliminary grid connection route. There has been no intrusive archaeological investigation within the site and along the preliminary grid connection route as such the identification and extent of any such assets is uncertain. It is possible that the Proposed Development will have a direct effect on other previously unknown archaeological remains. The archaeological baseline (at Appendix 7.1) concluded that the Site and the preliminary grid connection route have been shown to have a generally low archaeological potential. It is not possible to determine the sensitivity of unknown remains, although the available evidence suggests that any such assets would be of at most low sensitivity. At worst and without mitigation, this would result in an adverse effect of Major magnitude on an asset of Low sensitivity, leading to a Small adverse permanent significance of effect, which is not significant in EIA terms.

Indirect Effects - archaeology

- 7.61 There are 57 designated historic assets of archaeological interest within 10km of the Proposed Development of which 29 are within the bare earth zone of theoretical visibility (Figure 5.2a). These are listed in the Desk Based Assessment at Appendix 7.1. Following the site visits, the initial list of 57 was filtered to eight which it was considered could experience a loss of significance through a change to their setting should the Proposed Development receive consent.

Table 7.4: Scheduled Monuments assessed as potentially experiencing a loss of significance as a result of the Proposed Development.

Scheduled Monument Number	Scheduled Monument Name	Predicted Impact taken from Appendix 7.1
GM233	Crug yr Afan Round Cairn	Slight
GM234	Bachgen Carreg Round Cairn	Slight
GM232	Mynydd Caerau Round Cairns	Slight
GM231	Clawdd Mawr, Mynydd Caerau	Very Slight
GM278	Earthwork 360m NNE of Crug yr Avan	Very Slight
GM243	Carn y Hyrddod & Neighbouring Cairn	Moderate
GM499	Round Barrow on the Werfa	Moderate
GM246	Bwlch yr Avan Dyke	Moderate

- 7.62 In all cases, the Sensitivity of the Receptor is assessed as being High as per Table 7.1
- 7.63 For those monuments assessed as potentially experiencing a 'Very Slight' impact as a result of the Proposed Development, at worst and without mitigation, this

- would result in an adverse effect of Negligible magnitude on an asset of High sensitivity, leading to a Small adverse temporary significance of effect, which is not significant in EIA terms.
- 7.64 For those monuments assessed as potentially experiencing a ‘Slight’ impact as a result of the Proposed Development, at worst and without mitigation, this would result in an adverse effect of Minor magnitude on an asset of High sensitivity, leading to a Small adverse temporary significance of effect, which is not significant in EIA terms.
- 7.65 For those monuments assessed as potentially experiencing a ‘Medium’ impact as a result of the Proposed Development, at worst and without mitigation, this would result in an adverse effect of Moderate magnitude on an asset of High sensitivity, leading to a Medium/Large adverse temporary significance of effect, which is significant in EIA terms, but is at the lower end of the significant scale.
- 7.66 It is also possible that the Development will have an indirect effect on other previously unknown non-designated historic assets with archaeological interest remains beyond the boundary of the Site. The archaeological baseline (at Appendix 7.1) concluded that the Site and its surroundings have been shown to have a low archaeological potential. At worst and without mitigation, this would result in an adverse effect of temporary adverse Minor magnitude on an asset of Low sensitivity, leading to a Neutral/Small adverse temporary significance of effect, which is not significant in EIA terms.

Direct Effects - built heritage

- 7.67 There are no designated historic assets with built heritage interest within the site nor along the preliminary grid connection route. Accordingly, the construction phase of the Proposed Development will not have a direct effect on any designated historic assets with built heritage interest.

Indirect Effects - built heritage

- 7.68 There is one designated historic asset with built heritage interest within 10km of the site which the Desk Based Assessment identified as having the potential to be affected by the Proposed Development, this being the Grade II* listed Church of St Cynwyd. The Desk Based Assessment identified that this would experience a loss in significance due to a change in its setting arising from the Proposed Development and this is assessed as being very slight. At worst and without mitigation, this would result in an adverse effect of temporary adverse Negligible magnitude on an asset of High sensitivity, leading to a Small adverse temporary significance of effect, which is not significant in EIA terms.

Direct Effects - Registered Landscapes of Historic Interest in Wales

- 7.69 There are no Registered Landscapes of Historic Interest in Wales within the site nor along the preliminary grid connection route. Accordingly, the construction

phase of the Proposed Development will not have a direct effect on any Registered Landscapes of Historic Interest in Wales.

Indirect Effects - Registered Landscapes of Historic Interest in Wales

7.70 In all cases, the ASIDOHLv2 assessment has established that the Proposed Development will only have either a 'slight' or 'very slight' impact on the Rhondda and Margam Mountain Landscapes of Historic Interest in Wales which were identified as potentially being affected by the Proposed Development. At worst and without mitigation, in each case this would result in an adverse effect of temporary adverse Negligible magnitude on an asset of High sensitivity, leading to a Small adverse temporary significance of effect, which is not significant in EIA terms.

Operational Effects

Identification of Potential Effects

7.71 Potential operational effects are limited to indirect effects on the setting of designated and non-designated heritage assets which could arise during the operation of the Proposed Development and the grid connection route.

Indirect Effects - archaeology

7.72 There are 57 designated historic assets of archaeological interest within 10km of the Proposed Development of which 29 are within the bare earth zone of theoretical visibility. The bare earth zone of theoretical visibility is shown at Figure 5.2a. These are listed in the Desk Based Assessment at Appendix 7.1. Following the site visits, the initial list of 57 was filtered to seven which it was considered possible could experience a loss of significance through a change to their setting should the Proposed Development receive consent. One of these scheduled monuments would only be affected during the construction phase, lying on the proposed access track to the site (GM234 Bachgen Carreg Round Cairn).

Table 7.5: Scheduled Monuments assessed as potentially experiencing a loss of significance as a result of the Proposed Development.

Scheduled Monument Number	Scheduled Monument Name	Predicted Impact taken from Appendix 7.1
GM233	Crug yr Afan Round Cairn	Slight
GM232	Mynydd Caerau Round Cairns	Slight
GM231	Clawdd Mawr, Mynydd Caerau	Very Slight
GM278	Earthwork 360m NNE of Crug yr Avan	Very Slight
GM243	Carn y Hyrddod & Neighbouring Cairn	Moderate
GM499	Round Barrow on the Werfa	Moderate
GM246	Bwlch yr Avan Dyke	Moderate

- 7.73 In all cases, the Sensitivity of the Receptor is assessed as being High as per Table 7.1.
- 7.74 Potential indirect effects during the operational phase to historic assets of archaeological interest for those monuments assessed as potentially experiencing a 'Very Slight' impact as a result of the Proposed Development, at worst and without mitigation, this would result in an adverse effect of Negligible magnitude on an asset of High sensitivity, leading to a Small adverse significance of effect, which is not significant in EIA terms. Given the guidance within EN-3 as described in Chapter 4, this impact is considered to be temporary when weighed against the longevity of the monuments in question.
- 7.75 Potential indirect effects during the operational phase to historic assets of archaeological interest for those monuments assessed as potentially experiencing a 'Slight' impact as a result of the Proposed Development, at worst and without mitigation, this would result in an adverse effect of Minor magnitude on an asset of High sensitivity, leading to a Small adverse significance of effect, which is not significant in EIA terms. Given the guidance within EN-3 as in Chapter 4, this impact is considered to be temporary when weighed against the longevity of the monuments in question.
- 7.76 Potential indirect effects during the operational phase to historic assets of archaeological interest for those monuments assessed as potentially experiencing a 'Medium' impact as a result of the Proposed Development, at worst and without mitigation, this would result in an adverse effect of Moderate magnitude on an asset of High sensitivity, leading to a Medium/Large adverse significance of effect, which is significant in EIA terms, but is at the lower end of the significant scale. Given the guidance within EN-3 as in Chapter 4, this impact is considered to be temporary when weighed against the longevity of the monuments in question.
- 7.77 It is also possible that the Development will have an indirect effect on other previously unknown non-designated historic assets with archaeological interest remains beyond the boundary of the Site during its operational phase. The archaeological baseline (at Appendix 7.1) concluded that the Site and its surroundings have been shown to have a low archaeological potential. At worst and without mitigation, this would result in an adverse effect of adverse Minor magnitude on an asset of Low sensitivity, leading to a Neutral/Small adverse significance of effect, which is not significant in EIA terms. Given the guidance within EN-3 as listed in Chapter 4, this impact is considered to be temporary when weighed against the longevity of the monuments in question.

Indirect Effects - built heritage

- 7.78 There is one designated historic asset with built heritage interest within 10km of the site which the Desk Based Assessment identified as having the potential to be affected by the Proposed Development. The Desk Based Assessment identified that

this would experience a loss in significance due to a change in its setting arising from the Proposed Development and this is assessed as being very slight. At worst and without mitigation, this would result in an adverse effect of temporary adverse Negligible magnitude on an asset of High sensitivity, leading to a Small adverse significance of effect, which is not significant in EIA terms. Given the guidance within EN-3 as in Chapter 4, this impact is considered to be temporary when weighed against the longevity of the building in question.

Indirect Effects - Registered Landscapes of Historic Interest in Wales

7.79 In all cases, the ASIDOHLv2 assessment has established that the Proposed Development will only have either a 'slight' or 'very slight' impact on the Rhondda and Margam Mountain Landscapes of Historic Interest in Wales which were identified as potentially being affected by the Proposed Development. At worst and without mitigation, in each case this would result in an adverse effect of Negligible magnitude on an asset of High sensitivity, leading to a Small adverse significance of effect, which is not significant in EIA terms. Given the guidance within EN-3 as listed in Chapter 4, this impact is considered to be temporary when weighed against the longevity of the elements of the landscape area in question.

Decommissioning Effects

Physical Effects - archaeology

7.80 No potential direct effects to historic assets of archaeological interest during or following the decommissioning phase are likely to be encountered.

Indirect Effects - archaeology

7.81 There are 57 designated historic assets of archaeological interest within 10km of the Proposed Development of which 29 are within the bare earth zone of theoretical visibility. These are listed in the Desk Based Assessment at Appendix 7.1. Following the site visits, the initial list of 57 was filtered to seven which it was considered possible could experience a loss of significance through a change to their setting should the Proposed Development receive consent.

Table 7.6: Scheduled Monuments assessed as potentially experiencing a loss of significance as a result of the Proposed Development.

Scheduled Monument Number	Scheduled Monument Name	Predicted Impact taken from Appendix 7.1
GM233	Crug yr Afan Round Cairn	Slight
GM232	Mynydd Caerau Round Cairns	Slight
GM231	Clawdd Mawr, Mynydd Caerau	Very Slight
GM278	Earthwork 360m NNE of Crug yr Avan	Very Slight
GM243	Carn y Hyrddod & Neighbouring Cairn	Moderate
GM499	Round Barrow on the Werfa	Moderate
GM246	Bwlch yr Avan Dyke	Moderate

- 7.82 In all cases, the Sensitivity of the Receptor is assessed as being High as per Table 7.1
- 7.83 Potential indirect effects during the decommissioning phase to historic assets of archaeological interest for those monuments assessed as potentially experiencing a ‘Very Slight’ impact as a result of the Proposed Development, at worst and without mitigation, this would result in an adverse effect of Negligible magnitude on an asset of High sensitivity, leading to a Small adverse temporary significance of effect, which is not significant in EIA terms.
- 7.84 For those monuments assessed as potentially experiencing a ‘Slight’ impact as a result of the Proposed Development, at worst and without mitigation, this would result in an adverse effect of Minor magnitude on an asset of High sensitivity, leading to a Small adverse temporary significance of effect, which is not significant in EIA terms.
- 7.85 For those monuments assessed as potentially experiencing a ‘Medium’ impact as a result of the Proposed Development, at worst and without mitigation, this would result in an adverse effect of Moderate magnitude on an asset of High sensitivity, leading to a Medium/Large adverse temporary significance of effect, which is significant in EIA terms, but is at the lower end of the significant scale.
- 7.86 It is also possible that the Development will have an indirect effect on other previously unknown non-designated historic assets with archaeological interest with remains beyond the boundary of the Site during the decommissioning phase. The archaeological baseline (at Appendix 7.1) concluded that the Site and its surroundings have been shown to have a low archaeological potential. At worst and without mitigation, this would result in an adverse effect of temporary adverse Minor magnitude on an asset of Low sensitivity, leading to a Neutral/Small adverse temporary significance of effect, which is not significant in EIA terms.
- 7.87 Following decommissioning it has been assumed that the Site will revert to its present use. On this basis, a neutral effect on all seven of the assets identified above and any previously unknown non-designated historic assets with archaeological interest with remains beyond the boundary of the Site is predicted.

Direct Effects - built heritage

- 7.88 No potential direct effects to historic assets of built heritage interest during the decommissioning phase are likely to be encountered.

Indirect Effects - built heritage

- 7.89 There is one designated historic asset with built heritage interest within 10km of the site which the Desk Based Assessment identified as having the potential to be affected by the decommissioning of the Proposed Development, this being the Grade II* listed Church of St Cynwyd. The Desk Based Assessment identified that this would experience a loss in significance due to a change in its setting arising

from the decommissioning of the Proposed Development, this is assessed as being very slight. At worst and without mitigation, this would result in an adverse effect of temporary adverse Negligible magnitude on an asset of High sensitivity, leading to a Small adverse temporary significance of effect, which is not significant in EIA terms.

- 7.90 Following decommissioning it has been assumed that the Site will revert to its present use. On this basis, a neutral effect on the Grade II* listed Church of St Cynwyd is predicted.

Direct Effects - Registered Landscapes of Historic Interest in Wales

- 7.91 No potential direct effects on any Registered Landscapes of Historic Interest in Wales during the decommissioning phase are likely to be encountered. There are no Registered Landscapes of Historic Interest in Wales within the site. Accordingly, the decommissioning phase of the Proposed Development will not have a direct effect.

Indirect Effects - Registered Landscapes of Historic Interest in Wales

- 7.92 In all cases, the ASIDOHLv2 assessment has established that the Proposed Development will only have either a 'slight' or 'very slight' impact on the Rhondda and Margam Mountain Landscapes of Historic Interest in Wales which were identified as potentially being affected by the Proposed Development. At worst and without mitigation, in each case this would result in an adverse effect of temporary adverse Negligible magnitude on an asset of High sensitivity, leading to a Small adverse temporary significance of effect, which is not significant in EIA terms.

Mitigation

Construction Phase

Non-designated historic assets of archaeological interest

- 7.93 Any direct impact on below ground archaeological remains can be mitigated for in advance of and during construction.
- 7.94 Proposed mitigation measures related to permanent physical effects on hitherto unknown heritage assets identified above would be proposed to be initially evaluative trial trenching to determine the presence or absence of archaeological remains, determined extent, date, character and significance. This would be followed by suitable excavation/monitoring depending on the results of the trial trenching, along with appropriate recording, reporting and archiving of the resource.
- 7.95 Mitigation has been addressed in the design of the Proposed Development such that all known cultural heritage features have been avoided, and can be addressed in

the design of the grid connection route such that all known cultural heritage features can be avoided, no significant effects on known non-designated historic assets of archaeological interest are anticipated and as such no specific mitigation measure are proposed.

Designated historic assets

7.96 Only three designated historic assets have been identified as potentially experiencing a significant adverse effect as a result of the Proposed Development. Due to the nature of the Proposed Development and the location of those three designated historic assets in relation the Proposed Development, it is considered that no mitigation measures would be viable, although measures to offset and compensate for adverse effects are proposed. This will be done through the preparation of a Monument Management Plan (as a condition on planning) which will be implemented during the construction and operation phase. The plan would include: Improving Access; Interpretation/Information Panels; Management of the Monuments During Construction and During Operation.

Residual Effects

7.97 As noted above, no mitigation measures are considered to be viable in relation to the two scheduled monuments which have the potential to experience a significant adverse effect from the Proposed Development. On that basis, this would result in a residual adverse effect of Moderate magnitude on an asset of High sensitivity, leading to a Medium/Large adverse significance of effect, which is significant in EIA terms, but is at the lower end of the significance scale, which would extend from the construction phase through the operational phase and to the end of the decommissioning phase. It has been assumed that the Site will revert to its present use following decommissioning. Given the guidance within EN-3 as outlined in Chapter 4, this impact is considered to be temporary when weighed against the longevity of the monuments in question, and will revert to a neutral effect upon decommissioning being completed.

Cumulative Effects

7.98 No cumulative effects are predicted.

Summary

Table 7.7: Summary of Residual Effects

Likely Significant Effect	Mitigation	Means of Implementation	Residual Effect
Small adverse permanent effect on as yet unknown non-	No specific mitigation proposed, on the basis that effect is not	Initial archaeological evaluation followed by appropriate, excavation,	None if mitigation is undertaken. Small

designated historic assets within the footprint of the Proposed Development	significant in EIA terms, but it would be feasible and possible to mitigate	recording reporting and archiving as appropriate	adverse permanent effect if no mitigation
Small temporary adverse effect on GM233 Crug yr Afan Round Cairn through a change to its setting	None proposed, on the basis that effect is not significant in EIA terms, and no mitigation measures considered viable due to the nature of the Proposed Development and the location scheduled GM233 Crug yr Afan Round Cairn in relation to it	N/A	Small adverse, reverting to Neutral upon decommissioning
Small temporary adverse effect on GM234 Bachgen Carreg Round Cairn through a change to its setting with diversion of access road	None proposed, on the basis that effect is not significant in EIA terms, and no mitigation measures considered necessary due to the nature of the Proposed Development (possible diversion of the access road further away from the monument)	N/A	Small adverse, reverting to Neutral upon decommissioning
Small temporary adverse effect on GM232 Mynydd Caerau Round Cairns through a change to its setting	None proposed, on the basis that effect is not significant in EIA terms, and no mitigation measures considered viable due to the nature of the Proposed Development and the location scheduled GM232 Mynydd Caerau Round Cairns in relation to it	N/A	Small adverse, reverting to Neutral upon decommissioning
Small temporary adverse effect on GM278 Earthwork 360m NNE of Crug yr Avan through a change to its setting	None proposed, on the basis that effect is not significant in EIA terms, and no mitigation measures considered viable due to the nature of the Proposed Development and the location scheduled GM278 Earthwork 360m NNE of Crug yr Avan in relation to it	N/A	Small adverse, reverting to Neutral upon decommissioning

Small temporary adverse effect on GM231 Clawdd Mawr, Mynydd Caerau through a change to its setting	None proposed, on the basis that effect is not significant in EIA terms, and no mitigation measures considered viable due to the nature of the Proposed Development and the location scheduled GM231 Clawdd Mawr, Mynydd Caerau in relation to it	N/A	Small adverse, reverting to Neutral upon decommissioning
Small temporary adverse effect on Grade II* listed Church of St Cynwyd through a change to its setting	None proposed, on the basis that effect is not significant in EIA terms, and no mitigation measures considered viable due to the nature of the Proposed Development and the location Grade II* listed Church of St Cynwyd in relation to it	N/A	Small adverse, reverting to Neutral upon decommissioning
Small temporary adverse effect on Rhondda Landscape of Special Historic Interest through a change to its setting	None proposed, on the basis that effect is not significant in EIA terms, and no mitigation measures considered viable due to the nature of the Proposed Development and the Rhondda Landscape of Special Historic Interest in relation to it	N/A	Small adverse, reverting to Neutral upon decommissioning
Small temporary adverse effect on Margam Mountain Landscape of Special Historic Interest through a change to its setting	None proposed, on the basis that effect is not significant in EIA terms, and no mitigation measures considered viable due to the nature of the Proposed Development and the location Margam Mountain Landscape of Special Historic Interest in relation to it	N/A	Small adverse, reverting to Neutral upon decommissioning
Medium temporary adverse effect on the significance of scheduled monument GM243 Carn y Hyrddod & Neighbouring Cairn	No mitigation measures considered viable due to the nature of the Proposed Development and the location scheduled monument GM243 Carn y Hyrddod	Monument Management Plan to be prepared to include: Improving Access; Interpretation/Information Panels; Management of the Monuments During	Medium adverse, reverting to Neutral upon decommissioning

through a change to its setting	& Neighbouring Cairn in relation to it. Measures to compensate for and to offset adverse impacts will be implemented	Construction and During Operation.	
Medium temporary adverse effect on the significance of scheduled monument GM499 Round Barrow on the Werfa through a change to its setting	No mitigation measures considered viable due to the nature of the Proposed Development and the location scheduled monument GM499 Round Barrow on the Werfa in relation to it. Measures to compensate for and to offset adverse impacts will be implemented	Monument Management Plan to be prepared to include: Improving Access; Interpretation/Information Panels; Management of the Monuments During Construction and During Operation.	Medium adverse, reverting to Neutral upon decommissioning
Medium temporary adverse effect on the significance of GM246 Bwlch yr Avan Dyke through a change to its setting	No mitigation measures considered viable due to the nature of the Proposed Development and the location scheduled GM246 Bwlch yr Avan Dyke in relation to it. Measures to compensate for and to offset adverse impacts will be implemented.	Monument Management Plan to be prepared to include: Improving Access; Interpretation/Information Panels; Management of the Monuments During Construction and During Operation.	Medium adverse, reverting to Neutral upon decommissioning