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7. Historic Environment

7.1 Introduction

- 7.1.1 This chapter presents the assessment of the likely significant effects of the Project with respect to the Historic Environment, including heritage receptors (historic assets) in the wider landscape and buried archaeological features, deposits and/or remains.
- 7.1.2 The assessment is based on information obtained to date. It should be read in conjunction with the Project description provided in **Chapter 4: Description of the Project**.
- 7.1.3 This chapter describes:
- The legislation, policy and technical guidance that has informed the assessment (**Section 7.2**);
 - The consultation and engagement that has been undertaken and how comments from consultees relating to the Historic Environment have been addressed (**Section 7.3**);
 - The methods used for baseline data gathering (**Section 7.4**);
 - Overall baseline (**Section 7.5**);
 - Embedded mitigation measures relevant to the Historic Environment (**Section 7.6**);
 - The scope of the assessment for the Historic Environment (**Section 7.7**);
 - The methods used for the assessment (**Section 7.8**);
 - The assessment of Historic Environment effects (**Section 7.9**);
 - The assessment of cumulative (inter-project) effects (**Section 7.10**);
 - A summary of the significance conclusions (**Section 7.10.2**);
 - The additional mitigation measures which are proposed (**Section 7.12**); and
 - The Historic Environment residual effects assessment (**Section 7.13**).

Limitations and assumptions

- 7.1.4 The Draft ES has been produced to fulfil Pennant Walters' consultation duties and enable consultees to develop an informed view of the likely significant effects of the Project.
- 7.1.5 The baseline data relies on an Archaeological and Heritage Assessment (**Appendix 7A**). This desk-based assessment predicts the Site's archaeological potential relying on professional opinion arising from the analysis of the available data. In this respect its conclusions are based on an element of assumption, albeit one which is informed by evidence and experience.
- 7.1.6 It is assumed that the HER data, as curated by Glamorgan Gwent Archaeological Trust (GGAT), the National Monuments Record of Wales (NMRW) data curated by the Royal Commission for the Ancient and Historical Monuments of Wales (RCAHMW), and the Cadw data that has informed the Archaeological and Heritage Assessment is accurate and robust.

- 7.1.7 Following consultation with GGAT, it has not been necessary to carry out any pre-determination archaeological fieldwork. As such, no archaeological fieldwork data is presently available that might inform the potential archaeological impacts of the Proposed Development. The assessment of archaeological impacts to previously unrecorded archaeological remains is therefore based on desk-based information alone.

7.2 Relevant legislation, planning policy and technical guidance

- 7.2.1 This section identifies the legislation, planning policy and technical guidance that has informed the assessment of effects with respect to the Historic Environment. Further information on policies relevant to the Project is provided in **Chapter 5: Legislation and policy overview**.

Legislation

- 7.2.2 A summary of the relevant legislation is given in **Table 7.1**.

Table 7.1 Legislation Relevant to the Historic Environment Assessment.

Legislation	Legislative context
Ancient Monuments and Archaeological Areas Act 1979¹	The 1979 Act addresses the designation and management of scheduled monuments. The 1979 Act does not address the concept of 'setting', just physical remains and, therefore, for scheduled monuments the protection of 'setting' is a matter of policy only.
The Planning (Listed Buildings and Conservation Areas) Act of 1990²	<p>The 1990 Act is the primary legislative instrument addressing the treatment of listed buildings and conservation areas through the planning process.</p> <p>Section 66(1) sets out the statutory duty of Local Planning Authorities and other decision makers, where proposals would affect a listed building or its setting.</p> <p>Section 72(1) addresses development proposals that would affect the character or appearance of a Conservation Area. However, the 'statutory duty' which is set out in the 1990 Act does not extend to cover the 'setting' of a Conservation Area and so instead that is a matter addressed through relevant planning policies.</p>
Historic Environment (Wales) Act 2016³	Whilst providing a number of new provisions to existing legislation, the 2016 Act does not specifically affect the planning process or the way in which archaeology and heritage matters are addressed.

¹ UK Government, 1979 Ancient Monuments and Archaeological Areas Act. The Secretary of State's functions under the Act have been transferred to the Welsh Ministers in relation to Wales. Available at: <https://www.legislation.gov.uk/ukpga/1979/46/contents/2006-10-01> (Accessed August 2022).

² UK Government, 1990 The Planning (Listed Buildings and Conservation Areas) Act. Available at: <https://www.legislation.gov.uk/ukpga/1990/9/contents> (Accessed August 2022).

³ National Assembly for Wales, 2016 Historic Environment (Wales) Act. Available at: <https://www.legislation.gov.uk/anaw/2016/4/contents> (Accessed August 2022).

Legislation	Legislative context
The Hedgerow Regulations 1997⁴	These regulations set out criteria to be used to determine the importance of hedgerows and protect important hedges from removal. Selection criteria include heritage-based considerations.

Planning policy

7.2.3 A summary of the relevant national and local planning policy is given in **Table 7.2**.

Table 7.2 Planning Policy Relevant to The Historic Environment Assessment.

Policy	Policy context
National planning policy	
Future Wales – The National Plan 2040⁵	Future Wales sets out the Welsh Government’s national development framework and policy, comprising part of the Development Plan to be taken as the starting point for consideration of planning applications in Wales. One of its ‘outcomes’ is that Wales should be a place where prosperity, innovation and culture are promoted, stating that the south-east of Wales’ historic resources should be protected “ <i>for the enjoyment of future generations and help to provide economic benefits for the region’s communities</i> ” and that the region’s distinctive heritage should be preserved and enhanced by high quality development.
Planning Policy Wales, Edition 11, Chapter 6 Distinctive and Natural Places⁶	<p>Section 6.1 defines the nature of the ‘historic environment’. It also identifies the historic environment as being made up of individual historic features, archaeological sites, historic buildings and historic parks, gardens, townscales and landscapes, which are collectively known as ‘historic assets’.</p> <p>The Welsh Government’s specific objectives for the historic environment are outlined at Paragraphs 6.1.6 and 6.1.7, which state that the planning system should look to protect, conserve and enhance the significance of historic assets, including consideration of their settings, and that change to historic assets should be managed in a sensitive and sustainable way. The key paragraph regarding the treatment of listed buildings is Paragraph 6.1.10 which essentially defers to the 1990 Act as does 6.1.14 which relates to conservation areas. At Paragraph 6.1.18 PPW deals with historic parks and gardens recorded on the Register of Historic Parks and Gardens in Wales, stating that planning authorities should value, protect, conserve and enhance their special interest and their settings and that effects on them or their setting are a material consideration in planning. World Heritage Sites are covered by Paragraph 6.1.22 where impacts upon them and their settings are also a material consideration, and that the planning system should look to protect their Outstanding Universal Value. Historic landscapes are covered by Paragraphs 6.1.20 and 6.1.21, where it is stated that for EIA development impacts upon the qualities of landscapes on the Register of</p>

⁴ UK Statutory Instruments (1997) The Hedgerows Regulations 1997 (Online). Available at: <https://www.legislation.gov.uk/ukxi/1997/1160/contents/made> (Accessed August 2022)

⁵ Welsh Government, 2021 Future Wales – The National Plan 2040. Available at: [Future Wales: the national plan 2040 | GOV.WALES](https://gov.wales/future-wales-the-national-plan-2040) (Accessed August 2022).

⁶ Welsh Government, 2021 Planning Policy Wales, Edition 11. Available at: <https://gov.wales/planning-policy-wales> (Accessed August 2022).

Policy	Policy context
	<p>Historic Landscapes in Wales should be taken into account in planning decisions.</p> <p>Key paragraphs regarding the treatment of archaeological remains in the planning process are Paragraphs 6.1.24 – 6.1.28, whereby the conservation of archaeological remains is stated as a material consideration whether they are scheduled or not. Paragraph 6.1.24 states that there should be a presumption in favour of the preservation in situ of Nationally Important remains and planning permission should only be granted in exceptional circumstances if development would result in a direct adverse impact upon a scheduled monument or nationally important archaeological site. Paragraph 6.1.25 states that, for less important sites, the planning authority should weigh the relative importance of the remains and their settings against other factors including the need for development. Later paragraphs deal with mitigation of the loss of archaeological remains through pre-commencement recording.</p>
Local planning policy	
Blaenau Gwent County Borough Council Local Development Plan up to 2021 (Adopted November 2012) ⁷	Of relevance is Strategic Policy S11 Protection and Enhancement of the Historic Environment which seeks to protect, preserve and, where appropriate enhance the Borough's distinct built environment. It aims to do this by safeguarding nationally designated sites from inappropriate development, protecting locally designated buildings and conservation areas, enhancing sites of historic or archaeological value and promoting heritage tourism.
Torfaen Local Development Plan to 2021 (Adopted December 2013) ⁸	Of relevance is Strategic Policy S7 Conservation of the Natural and Historic Environment which seeks to ensure the conservation of the built and historic environment of Torfaen, including the character of the built environment and historic assets.

Technical guidance

7.2.4 A summary of the technical guidance for Historic Environment is given in **Table 7.3**.

Table 7.3 Technical guidance relevant to the Historic Environment assessment

Technical guidance document	Context
Technical Advice Note 24 (TAN 24)	Additional guidance for the historic environment in Wales is set out in TAN 24. It provides “guidance on how the planning system considers the historic environment during development plan preparation and decision making on planning applications.” It clarifies the policies and distinctions made in PPW. A key section is Section 4, which is concerned with the treatment of archaeological remains. Indirect effects on historic assets through changes within their settings are covered in TAN 24 at Paragraphs 1.23 to 1.29.

⁷ Available at: <https://www.blaenau-gwent.gov.uk/en/resident/planning/local-development-plan/adopted-ldp-allocations/adopted-local-development-plan-2006-2021> (Accessed August 2022).

⁸ available at: Local Development Plan | Torfaen County Borough Council (Accessed August 2022).

Technical guidance document	Context
Conservation Principles for the sustainable management of the historic environment in Wales⁹	Cadw guidance relevant to the assessment and definition of the significance of historic assets. The guidance defines heritage significance as comprising four values: evidential, historical, aesthetic and communal.
Setting of Historic Assets in Wales¹⁰	Sets out the industry standard approach to setting assessment within a Welsh context. The guidance defines a four-stage process to setting assessment.
Heritage Impact Assessment in Wales¹¹	Guidance on the process of carrying out Heritage Impact Assessment for specific historic assets that is applicable to other types of heritage assessment.
Standard and guidance for historic environment desk-based assessment¹²	Industry standard guidance issued by the Chartered Institute for Archaeologists on the process of desk-based archaeological and heritage assessment.
Standard and guidance for commissioning work or providing consultancy advice on archaeology and the historic environment¹³	Industry standard guidance issued by the Chartered Institute for Archaeologists on the role of a consultant in historic environment assessment.
Guide to good practice on using the Register of landscapes of historic interest in Wales in the planning and development process (ASIDHOL2)¹⁴	Cadw guidance on the process of assessing impacts upon landscapes included on the Register of Historic Landscapes in Wales.
LA 104 Environmental Assessment and Monitoring and LA 106 Historic Environment Assessment of the Design Manual for Roads and Bridges (DMRB)¹⁵	Guidance that includes an industry standard methodology for Historic Environment EIA.
Guidance and Toolkit for Impact Assessments in a World Heritage Context¹⁶	ICOMOS guidance on carrying out Heritage Impact Assessments on World Heritage Sites.

⁹ Cadw, 2011. Available at: <https://cadw.gov.wales/advice-support/conservation-principles/conservation-principles> (Accessed August 2022)

¹⁰ Cadw, 2017a. Available at: <https://cadw.gov.wales/advice-support/placemaking/heritage-impact-assessment/setting-historic-assets> (Accessed August 2022)

¹¹ Cadw, 2017b. Available at: <https://cadw.gov.wales/advice-support/placemaking/heritage-impact-assessment/heritage-impact-assessment> (Accessed August 2022)

¹² Chartered Institute for Archaeologists, 2020a. Available at: <https://www.archaeologists.net/codes/cifa> (Accessed August 2022).

¹³ Chartered Institute for Archaeologists, 2020b Available at: <https://www.archaeologists.net/codes/cifa> (Accessed August 2022).

¹⁴ Cadw, 2007. Available at: https://cadw.gov.wales/sites/default/files/2019-05/LandscapesRegisterGoodPractice_EN_0.pdf (Accessed August 2022).

¹⁵ National Highways, 2020. Available at: <https://www.standardsforhighways.co.uk/dmr/> (Accessed October 2022)

¹⁶ ICOMOS, 2022. Available at: <https://whc.unesco.org/en/guidance-toolkit-impact-assessments>

Technical guidance document	Context
Blaenavon World Heritage Site Management Plan 2011 – 2016 ¹⁷	Management Plan including statement of Outstanding Universal Value for the Blaenavon Industrial Landscape World Heritage Site

7.3 Consultation and engagement

Overview

- 7.3.1 The assessment process has been informed by consultation responses and ongoing stakeholder engagement. An overview of the approach to consultation is provided in **Section 2.9 of Chapter 2: Approach to preparing the Environmental Statement.**

Scoping Opinion

- 7.3.2 A Scoping Direction was issued by Planning and Environment Decision Wales (PEDW formally Planning Inspectorate Wales), on behalf of the Welsh Ministers, on 06 August 2021. A summary of the relevant responses received in the Scoping Opinion in relation to Historic Environment, as well as confirmation of how these have been addressed within the assessment to date, is presented in **Table 7.4.**
- 7.3.3 The information provided in the Draft ES has addressed the comments in the Scoping Direction.

¹⁷ Torfaen County Borough Council, 2011. Available from <https://whc.unesco.org/en/list/984> (Accessed October 2022)

Table 7.4 Summary of EIA Scoping Direction responses for Historic Environment

Consultee	Consideration	How addressed in this Draft ES
Cadw	That the application should consider designated historic assets within a 10km study area around the Site to ascertain any impacts upon their settings in accordance with Cadw setting assessment guidelines (Cadw, 2017a) and that this assessment should be appended to the EIA.	Stages 1 and 2 of the setting assessment have been undertaken and the results are set out in the Archaeological and Heritage Assessment included as Appendix 7A . Stages 3 and 4 of the settings assessment are undertaken within this chapter.
	That the application should include a Heritage Impact Assessment (HIA) in relation to the Blaenavon Industrial Landscape World Heritage Site (BILWHS) which should reference the documents Guidance and Toolkit for Impact Assessments in a World Heritage Context (ICOMOS, 2022) and Managing Change in World Heritage Sites in Wales (Welsh Government 2017).	The HIA is included at Appendix 7B with its results referenced in the assessment in this chapter. The HIA was informally reviewed by Neil Maylan of Cadw in October 2022.
	That due to the similar extent of the BILWHS and the Blaenavon Landscape of Outstanding Historic Interest (BLOHI) an HIA should be carried out to identify and assess impacts upon the BLOHI. However, a separate assessment following the ASIDHOL2 methodology (Cadw, 2007) would not also be required.	No ASIDHOL2 assessment has been carried out, with the BLOHI instead referenced in the HIA
	That walkover survey should only be carried out after the desk-based assessment research has been completed including the study of LiDAR datasets.	This methodology has been followed in the Archaeological and Heritage Assessment included as Appendix 7A .
	The potential need for archaeological evaluation should not be discounted until after the desk-based assessment and walkover are completed.	Consultation was carried out in October 2022 with GGAT following the submission to them of the Archaeological and Heritage Assessment. The results of this consultation are detailed below.
Glamorgan Gwent Archaeological Trust GGAT)	That an archaeological desk-based assessment (DBA) in accordance with the Standards and Guidance of the Chartered Institute for Archaeologists (CIfA) is an appropriate response.	This methodology has been followed in the Archaeological and Heritage Assessment included as Appendix 7A .
	That the DBA will need to be carried out in accordance with a submitted and approved Written Scheme of Investigation (WSI).	The WSI was agreed in April 2022 and is appended at Annex A of the report at Appendix 7A .
	Depending on the results of the DBA, further archaeological works may be required. Depending on their nature, it may be appropriate for those works to be	Consultation with GGAT in October 2022 established that there is no need to carry out any pre-determination archaeological fieldwork. GGAT state that a likely

Consultee	Consideration	How addressed in this Draft ES
	completed either pre or post determination, but in either case it is recommended that they are carried out by a Registered Organisation (RO) with the Chartered Institute for Archaeologists (CIfA), or by a full Member (MCIfA) of the CIfA.	response to construction phase impacts on historic assets would be to impose an archaeological condition on planning permission should it be granted.

7.4 Data gathering methodology

- 7.4.1 The ES Chapter has been informed by an Archaeological and Heritage Baseline Assessment (**Appendix 7A**) and a Heritage Impact Assessment (**Appendix 7B**), where the latter is specifically concerned with the potential for effects on the BILWHS.

Study area

- 7.4.2 The Archaeological and Heritage Baseline Assessment adopts two study areas.
- 7.4.3 The first of these relates to baseline data for archaeology (hereafter referred to as the Archaeology Study Area or ASA). It extends 500m from the Site boundary, including from the grid connection and access track.
- 7.4.4 In accordance with Cadw's consultation response, a wider study area was adopted to enable the assessment of potential changes to the settings of designated heritage assets, such that could affect their significance (hereafter referred to as the Setting Study Area or SSA). This was not rigidly defined, but in practice extended to a maximum of 10km from the Site – a distance which was considered adequate to capture all designated historic assets that could be potentially affected by the Site's development.
- 7.4.5 The HIA did not adopt a study area, rather it assessed the potential for effects on the significance of the designated Blaenavon Industrial Landscape World Heritage Site (BILWHS).

Desk study

- 7.4.6 A desk study has been completed in accordance with a Written Scheme of Investigation (WSI), which sets out the sources that were consulted to establish the archaeological baseline for the Site. The WSI was agreed with the GGAT Archaeological Planning Officer and is included as Annex A to the report at **Appendix 7A**. A summary of the organisations that have supplied data, together with the nature of that data is outlined in **Table 7.5**.

Table 7.5 Data sources used to inform the Historic Environment assessment

Organisation	Data source	Data provided
Cadw	Online database	Data on designated historic assets in Wales
Glamorgan Gwent Archaeological Trust (GGAT)	Historic Environment Record	Historic environment data for the Archaeological Study Area and the BILWHS

Organisation	Data source	Data provided
Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW)	National Monuments Record of Wales	Historic environment data for the Archaeological Study Area and the BILWHS
Central Register of Aerial Photography for Wales (CRAPW)	Welsh Government collection of aerial photographs	Aerial photographs for the Site
Google Earth	Online interface	Aerial photographs for the Site
Welsh Government	Lle Geo-portal for Wales	Lidar data for the Site
Landmark Information Group	Envirocheck website	Historic Maps

Survey work

- 7.4.7 In order to assess the potentially significant direct physical impacts and indirect impacts arising from changes to the setting of historic assets and, in accordance with *Standard and guidance for historic environment desk-based assessment*¹⁸ a series of walkover surveys took place on 8 and 13 June 2022 and on the 18 August 2022. These included visits to the Site, to the BILWHS and to relevant historic assets in the wider landscape.
- 7.4.8 Additionally, the setting assessment aspect and the HIA were informed by a Zone of Theoretical Visibility (ZTV) created on the basis of the 180m tip height of the proposed turbines and indicating with which historic assets the proposed turbines potentially might have a visual relationship with.
- 7.4.9 The projection was based on a Digital Terrain Model (DTM) generated by LiDAR survey and thus takes no account of trees, buildings and other features in the landscape that could reduce visibility. Furthermore, the ZTV is from a fixed point in time, is relative to the resolution of the LiDAR data and does not therefore account for the dynamic nature of the landscape nor does it account for all landscape features or atmospheric factors that affect visibility. Hence, inclusion of an asset in the ZTV does not necessarily indicate a visual relationship between the asset and the proposed development and given its broad parameters, the ZTV was used as a predictive tool to focus field survey effort on those assets most likely to experience a significant effect, rather than an exercise in its own right.
- 7.4.10 The HIA was also undertaken with reference to a series of Photo viewpoints which were produced for the LVIA which is included at **Appendix 6B** of the ES.

7.5 Overall baseline

- 7.5.1 The Historic Environment baseline for the Site is set out in the Archaeological and heritage Assessment (**Appendix 7A**)

¹⁸Chartered Institute for Archaeologists, 2020a. Available at: <https://www.archaeologists.net/codes/cifa> (Accessed August 2022).

Designated Historic Assets

- 7.5.2 The Site does not contain any designated heritage assets (listed buildings, scheduled monuments, historic parks and gardens), nor is it part of any area designation such as a conservation area, Registered Historic or Outstanding Landscape or World Heritage Site.
- 7.5.3 Regarding designated historic assets located beyond the Site boundary, Stage 1 of the assessment process (detailed in the Archaeological and Heritage Baseline Assessment at **Appendix 7A**) utilised the ZTV as a predictive tool to identify assets with a potential visual relationship with the Proposed Development and then informed field visits where the actual potential for a visual relationship between the asset and the Proposed Development was assessed.
- 7.5.4 Designated historic assets located outwith the ZTV were scoped out of the assessment process. None of the assets which were excluded from the assessment process possess or exhibit non-visual historic associations or other relationships with the Site which could contribute to their significance and therefore it is considered very unlikely that any of them would experience a loss of significance and be adversely affected by the Project being implemented.
- 7.5.5 Following this exercise, the assets below were considered within Stage 1 of the setting assessment:
- 1 World Heritage Site (**Very High** sensitivity);
 - 14 Scheduled Monuments (**High** sensitivity);
 - 22 Grade II* listed buildings (**High** sensitivity);
 - 244 Grade II listed buildings (**Medium** sensitivity);
 - 1 Grade II* and 1 Grade II Parks and Gardens on the Register of Historic Parks and Gardens of Wales (**Medium** sensitivity);
 - 5 Conservation Areas (**Medium** sensitivity); and
 - 2 Historic landscapes on the Register of Outstanding and Historic Landscapes of Wales (**Medium** sensitivity).
- 7.5.6 Details of the Stage 1 assessment in respect of all of the above historic assets, other than the BILWHS and the BLOHI, are given in Section 5 of the Archaeological and Heritage Baseline Assessment included as **Appendix 7A**.
- 7.5.7 The BILWHS and the BLOHI are described in respect of the Site and its relevance to their setting, such that it contributes to their heritage value, in Section 4 of the HIA (**Appendix 7B**),

Non-designated Historic Assets

- 7.5.8 The Archaeological and Heritage Baseline Assessment identified the following non-designated historic assets within the Site. The locations of these are illustrated on **Figures 7.1** and **7.2** of the ES.

Mynydd Llanhilleth possible Roman Road (GGAT08667g: A on **Figure 7.1**)

- 7.5.9 The alignment of a possible Roman Road is recorded by GGAT and on historic Ordnance Survey maps crossing Mynydd Llanhilleth and described as possibly connecting a Roman fort at Usk with one at Gelligaer. For much of the alignment it appears to have been

destroyed by open cast coal mining that occurred at Mynydd Llanhilleth in the mid-20th century. In the north-eastern part of the Site, the alignment is defined by an abraded trackway running parallel to a stone wall at the edge of the upland above Cwm Ddu. No roadside ditches or banks are apparent, although in some places the route seems to include a raised surface which could represent a deliberately built-up foundation for a road (i.e. a possible agger).

- 7.5.10 A 2020 evaluation of part of the route was inconclusive, although it may have targeted an area that had already been destroyed by opencast mining. The track is presently therefore undated, but could represent an historic asset of potentially **medium** sensitivity if it represents and contains the buried remains of a Roman road such as an agger, metaled surface or side ditches which would possess a moderate degree of evidential value.

Air Shaft and other mining remains at Cwm Cnyw (GGAT06416g: EA 135: B on **Figure 7.1**)

- 7.5.11 Remains of an air shaft are recorded by the GGAT HER on sloping ground on the south-east side of Cwm Cnyw. During the site visit, earthwork remains of a former level entrance and associated tips were also noted on the slopes below. These remains of the former 18th and 19th century industrial landscape possess a low degree of evidential and historical value and are assessed as representing a historic asset of **low** sensitivity.

Building at Pen Tranch and sheep pens (GGAT06902g: NMRW 421322: C on **Figure 7.1**)

- 7.5.12 A ruinous building is recorded within a complex of embanked enclosures with some topped with ruined dry-stone walls, and with a group of stone walled sheep pens adjacent. The building was seen to comprise only a few remnants of stone walls with the highest wall on its southern side. Internally, evidence is present for two main rooms with a third as an extension on its eastern side. The structures possess a low degree of evidential value containing information on this post-medieval farmstead, its form, materials and structure and they probably also contain archaeological remains related to its use. The structures also possess a low degree of historical value illustrating the nature and use of the post-medieval landscape in this area. The remains represent a historic asset of **low** sensitivity.

Cefn Crib Common, Ridgeway (GGAT07034g: NMRW 535594: D on **Figure 7.1**)

- 7.5.13 This historic route ran across Cefn Crib common along the boundary between the Parish of Llanhilleth and that of Trevethin and it probably represented a driveway between upland and lowland pastures. Following a parish boundary, the route could potentially be medieval or older in date. It comprises a broad area of abraded trackways and may include associated buried archaeological remains such as roadside ditches or a metalled surface. The structure possesses a degree of evidential value inherent in its buried remains which may contain information on its use and date, as well as historical value illustrating the history of transport across the common. The remains represent a historic asset of **low** sensitivity.

Bridge abutments on the route of the former Talywain Railway (GGAT03276.1: E on **Figure 7.1**)

- 7.5.14 The route of the former Talywain Railway crosses the access route that is part of the Site. Within the land-take associated with the widening of the access route is the south-eastern of a pair of abutments of a bridge that carried the railway across the road. This stone-built structure comprises an abutment and retaining walls built of rock-faced, random coursed sandstone.

- 7.5.15 The structure defines the former course of the railway which was a feature of the 19th century industrial landscape containing a low degree of evidential value in its built fabric and, historical value, illustrating the appearance of the 19th century landscape. In this regard it comprises a historic asset of **low** sensitivity.

Historic landscapes (F, G, H and I on **Figure 7.2**)

- 7.5.16 The Archaeological and Heritage Baseline Assessment identifies four areas of preserved post-medieval field boundaries and other features of the former agricultural landscape that survived at the fringe of the modern open cast mining that has dominated Mynydd Llanhilleth. These are described in Section 4 of the report at **Appendix 7A**. Although they are commonplace landscape types when compared to the wider locality, these are considered to possess, individually, a limited degree of historic landscape character in respect of the combined sensitivity of their component features.
- 7.5.17 These areas possess limited evidential value inherent in their component features (e.g. walls, field banks, ruined buildings), historical value illustrating the agricultural history of the Site and aesthetic value due to the mature trees that line many of the older boundaries. These areas individually represent historic assets of **low** sensitivity.

The British Ironworks Extractive Area (GGAT EA112: J on **Figure 7.1**)

- 7.5.18 The proposed grid connection corridor crosses part of an area defined by GGAT as the extent of the extraction area (mining area) associated with the former British Ironworks. The corridor only passes through a small part of this large area at its far eastern end. During the site visit it was seen that this area contains low earthworks within a field that are probably remnants of spoil tips. These features would possess a very limited degree of evidential value containing information on local mining activity. As such they comprise a historic asset of **very low** sensitivity.

Lower Navigation Colliery: Railway bridge (NMRW 85078: K on **Figure 7.1**)

- 7.5.19 The proposed access route crosses a bridge carrying the modern road across a watercourse. The bridge is almost entirely modern, but it is likely that the upper modern parts are built up from an older structure that now cannot be easily seen from the roadside. Remains of the older bridge probably possess some limited evidential value in relation to the structure's construction and materials and comprise a historic asset of **very low** sensitivity.

Site of former buildings at the 'Traveller's Rest' (L on **Figure 7.1**)

- 7.5.20 Historic maps indicate that a public house was present in the 19th century in the north-western part of the Site. The building was demolished, and its location was later occupied by buildings associated with the opencast mining operation. The location of these buildings was seen to comprise a terraced platform adjacent to the roadside at the head of Cwm Du. No building remains are now present. Buried remains in this location, such as those of the Inn, would be of very low evidential value and are a historic asset of **very low** sensitivity.

Unrecorded archaeological remains

- 7.5.21 The Archaeological and Heritage Baseline Assessment assesses that, in the parts of the Site that were subject to mid-20th century opencast coal mining, the potential for earlier archaeological remains surviving is nil.

7.5.22 In other parts of the Site, the assessment states the following for the different chronological periods:

- **Palaeoenvironmental:** There is no known evidence for discrete peat deposits within the Site. The palaeoenvironmental potential is therefore considered to be extremely low;
- **Palaeolithic, Mesolithic and Neolithic:** There is no evidence for archaeology of these periods within the Site or ASA, and indeed such evidence is rare at a regional level. The potential for archaeology of these periods to exist within the Site is considered to be very low;
- **Bronze Age:** There is a degree of evidence for archaeology of this period within the ASA. However, given that most of the upland areas within the Site where Bronze Age cairns and field systems might be expected have been disturbed and that no extant features of this period were seen during the site visit or in any other situation, the potential for hitherto unknown and unrecorded Bronze Age archaeology to exist within the Site is considered to be low. However, if present buried remains from this period could potentially be of moderate or even high sensitivity (such as funerary remains);
- **Iron Age and Roman:** There is no evidence for archaeology of the Iron Age within the Site or ASA. While this does not preclude it being present, the potential for archaeology of this period is considered to be very low. Of the Roman period it is possible that the Site is crossed by a Roman road, although this has not been archaeologically proven. However, there remains a high potential for unrecorded remains associated with the road to be present within the Site that could be of moderate sensitivity;
- **Medieval:** The agricultural landscape at the margins of the Site may have originated in the medieval period as farmsteads utilising the upland edge, probably following a pattern of seasonal transhumance. The potential for medieval archaeology to be present is considered to be high. However, the greatest likelihood is for infilled ditches and furrows related to agriculture rather than settlement remains, and these would be of low or very low sensitivity; and
- **Post-medieval and Modern:** As described in the Archaeological and Heritage Baseline Assessment, the post-medieval and modern periods are represented by either areas where elements of the post-medieval agricultural landscape are preserved or by historic mining remains that pre-date the modern opencast mining of the 20th century. There is a high likelihood that the Site contains buried remains related to these eras such as boundary or drainage ditches or previously unrecorded, buried remains related to coal mining. Such remains would be of very low sensitivity.

Non-designated historic assets located outside the Site

7.5.23 The Archaeological and Heritage Baseline Assessment identifies the following non-designated historic buildings located outwith the Site that could potentially be susceptible to an indirect effect as a result of change within their settings. The locations of these are shown on **Figure 7.1**.

- Gilfach Wen Farm and Barn (GGAT06399g: M on **Figure 7.1**);
- Ty-Dafydd cottage (GGAT06401g: N on **Figure 7.1**);
- Blaen Cyffin Farmhouse (GGAT04910g: O on **Figure 7.1**);
- Maes-y-Cnyw Farmhouse (GGAT02093g: P on **Figure 7.1**);

- Blaen-y-cwm ruined former Farmhouse (GGAT04914g: Q on **Figure 7.1**); and
- Gelli-Deg Farmhouse (GGAT04917g: R on **Figure 7.1**).

7.5.24 These assets are considered below in **Section 7.9** in respect of the potential for an indirect impact upon them from the implementation of the operation phase of the Proposed Development.

Future baseline

- 7.5.25 It is anticipated that there would be very little change to the Historic Environment baseline environment at the Site, and within the two study areas, should the Proposed Development not occur.
- 7.5.26 It is possible that other development in the wider ASA and SSA would change the settings of the historic assets considered as part of the setting assessment.
- 7.5.27 The Site is not under any erosive pressure (such as from arable farming) and so archaeological features within it are not likely to be further damaged to any great degree, other than by natural processes in respect of weather conditions.
- 7.5.28 Exacerbated poor weather conditions due to climate change are not likely to have any overt negative effect on any historic assets.

7.6 Embedded measures

7.6.1 Embedded mitigation measures proposed in respect of Historic Environment receptors are set out in **Table 7.6** below.

Table 7.6 Embedded mitigation measures

Receptor	Potential changes and effects	Embedded measures	Compliance mechanism
Construction			
Designated assets and non-designated assets within 10km with potential effects	Effects to the value of the historic assets through change within their settings.	The construction design will ensure that settings changes during construction are kept to a minimum. The construction phase will be temporary.	Development design
Non-designated historic assets within the Site	Direct disturbance to extant historic assets during construction.	Development design has aimed to avoid impacts on historic assets within the Site. To ensure construction works do not damage the assets they will be temporarily fenced off throughout construction works.	Development design and DNS planning condition
Operation			
Designated assets within 5km with potential effects	Effects to the value of the historic assets through change within their settings	The Development design has positioned turbines so as to avoid settings changes as best as possible.	Development design

- 7.6.2 Please note, mitigation in respect of direct impacts upon archaeological remains or other non-designated historic assets within the footprint of the development are addressed as Additional Measures in Section 7.12 of the chapter.

7.7 Scope of the assessment

Spatial scope

- 7.7.1 The spatial scope of the Historic Environment assessment covers the area of the Proposed Development contained within the Site boundary, together with the 1km radius ASA and 10km radius SAS.

Temporal scope

- 7.7.2 The temporal scope of the Historic Environment assessment is consistent with the period over which the Proposed Development would be carried out and therefore covers the construction and operational periods.

Potential receptors

- 7.7.3 The heritage receptors taken forward for assessment have been identified through desk-based assessment, field surveys and consultation with Cadw and GGAT.
- 7.7.4 As described in the Overall Baseline section above, the receptors that will potentially be affected by the Proposed Development comprise:
- Sub-surface archaeological remains surviving within the Site;
 - Extant non-designated historic assets within the Site;
 - Non-designated historic assets located outside the Site; and
 - Specific scheduled monuments, listed buildings, Parks and Gardens on the Register of Historic Parks and Gardens of Wales and Historic landscapes on the Register of Outstanding and World Heritage Sites located outside the Site.
- 7.7.5 As described in the Overall Baseline section above and in detail in the Archaeological and Heritage Baseline Assessment (**Appendix 7A**), a Stage 1 Setting Assessment has been carried out for all designated historic assets within 10km of the Site (the SAS), in accordance with *The Setting of Historic Assets in Wales*¹⁹.
- 7.7.6 Following Stage 1 of the assessment, certain designated historic assets were deemed potentially susceptible to an effect from the Proposed Development. These are set out in **Table 7.7** below.
- 7.7.7 In respect of Stage 2 of the settings assessment process, these assets are described, their significance identified and the contribution to their significance from their settings stated in Section 5 of **Appendix 7A**.
- 7.7.8 Also set out in **Table 7.7** are non-designated historic assets that are also potential receptors to direct and indirect effects from the Proposed Development.

¹⁹Cadw, 2017a. Available at: <https://cadw.gov.wales/advice-support/placemaking/heritage-impact-assessment/setting-historic-assets> (Accessed August 2022)

Table 7.7 Historic Environment receptors subject to potential effects

Receptor	Reason for consideration
The Blaenavon Industrial Landscape World Heritage Site (BILWHS)	Potential for significant effect as the BILWHS is partially located within the ZTV and an aspect of its Outstanding Universal Value (OUV) is in respect of its Aesthetic and Visual Value which references the relationship between the BILWHS and the wider landscape (with the turbines located 3.7km from it).
The Blaenavon Landscape of Outstanding Historic Interest (BLOHI)	Potential for significant effect as the BLOHI is partially located within the ZTV and changes to views could affect its component Historic Landscape Character Areas (HLCAs) with the nearest c. 2.75km from the proposed turbines.
Scheduled monument: Cwmybyrgwm Colliery (MM163: 2396) (including Grade II listed building Chimney to Cwmybyrgwm Colliery)	Potential for significant effect as the monument is partially located within the ZTV, close to the Site (c. 50m from the access track and c. 600m from the nearest turbine) and views to it would potentially have turbines as prominent features in the background.
Scheduled monument: St Illtyd's Castle Mound (MM141: 2381)	Potential for significant effect as the monument is located within the ZTV and is relatively near to the Site (c. 850m) and views to the Proposed Development could distract from an appreciation of the monument.
Listed building: St Illtyd's Church (Grade II*; Cadw Ref. 1866)	Potential for significant effect as the listed building is located within the ZTV and is relatively near to the Site (c. 780m) and views to the Proposed Development could distract from an appreciation of it within its setting.
Registered Park and Garden: Grade II* Pontypool Park (PGW (Gt) 26)	Potential for significant effect as the park is located within the ZTV (c. 2.4km from the Site), views across it are an aspect of its significance and views from its elevated parts to the Proposed Development could distract from an appreciation of the park landscape.
Listed building: Hafod-arthen (Grade II; Cadw Ref. 1867)	Potential for significant effect as the listed building is located within the ZTV and is relatively near to the Site (c. 570m) and views to the Proposed Development could distract from an appreciation of it within its setting.
Listed building: Ty-Ilwyd (Grade II; Cadw Ref. 22672)	Potential for significant effect as the listed building is located within the ZTV and is relatively near to the Site (c. 880m) and views to the Proposed Development could distract from an appreciation of it within its setting.
Non-designated historic building: Gilfach Wen Farm and Barn (GGAT06399g)	Potential for significant effect as the building is located within the ZTV, is relatively near to the Site (c. 350m) and views to the Proposed Development could distract from an appreciation of it within its setting.
Non-designated historic building: Ty-Dafydd (GGAT06401g)	Potential for significant effect as the building is located within the ZTV, is relatively near to the Site (c. 350m) and views to the Proposed Development could distract from an appreciation of it within its setting.
Non-designated historic building: Blaen Cyffin (GGAT04910g)	Potential for significant effect as the building is located within the ZTV, is relatively near to the Site (c. 170m) and views to the Proposed Development could distract from an appreciation of it within its setting.

Receptor	Reason for consideration
Non-designated historic building: Maes-y-Cnyw Farm (GGAT02093g)	Potential for significant effect as the building is located within the ZTV, is relatively near to the Site (c. 270m) and views to the Proposed Development could distract from an appreciation of it within its setting.
Non-designated historic building: Blaen-y-cwm (GGAT04914g)	Potential for significant effect as the building is located within the ZTV, is relatively near to the Site (c. 190m) and views to the Proposed Development could distract from an appreciation of it within its setting.
Non-designated historic building: Gelli-Deg (GGAT04917g)	Potential for significant effect as the building is located within the ZTV, is relatively near to the Site (c. 290m) and views to the Proposed Development could distract from an appreciation of it within its setting.
Non-designated historic asset: Building at Pen Tranch and sheep pens (GGAT06902g; NMRW 421322)	Located within the Site and potentially susceptible to a direct impact during the construction phase.
Non-designated historic asset: Cwm Du Historic landscape (F on Figure 7.2)	Area with historic landscape character that is located within the Site and potentially susceptible to direct impacts during the construction phase and indirect impacts during the operation phase.
Non-designated historic asset: Cwm Cynw Historic landscape (G on Figure 7.2)	Area with historic landscape character that is located within the Site and potentially susceptible to direct impacts during the construction phase and indirect impacts during the operation phase.
Non-designated historic asset: Craig Du field Historic landscape (H on Figure 7.2)	Area with historic landscape character that is located within the Site and potentially susceptible to direct impacts during the construction phase and indirect impacts during the operation phase.
Non-designated historic asset: Blaen Nant y Caws Historic landscape (I on Figure 7.2)	Area with historic landscape character that is located within the Site and potentially susceptible to direct impacts during the construction phase and indirect impacts during the operation phase.
Unrecorded archaeological remains	Unrecorded archaeological remains within the Site are potentially susceptible to a direct impact during the construction phase.

7.7.9 The receptors/effects detailed in **Table 7.8** have been scoped out from being subject to further assessment because the potential effects are not considered likely to be significant.

Table 7.8 Summary of effects scoped out of the Historic Environment assessment

Receptors/potential effects	Justification
Non-designated historic asset: Mynydd Llanhilleth possible Roman Road (GGAT08667g)	Whilst located within the Site, with reference to the Layout Plan (Figure 1.2) the asset would be unaffected by the footprint of the development or any of its ancillary components (such as the grid connection which runs south of the wall that lies adjacent to the possible Roman Road). As such it would not be subject to a significant effect.

Receptors/potential effects	Justification
Non-designated historic asset: Air Shaft and other mining remains at Cwm Cnyw (GGAT06416g: EA 135)	Whilst located within the Site, with reference to the Layout Plan (Figure 1.2) the group of assets would be unaffected by the footprint of the development. Turbine Eight lies directly to the east of the assets but its footprint and related infrastructure does not affect their location and they will not be subject to a significant effect.
Non-designated historic asset: Cefn Crib Common, Ridgeway (GGAT07034g: NMRW 535594)	Whilst located within the Site, with reference to the Layout Plan (Figure 1.2) the ridgeway route would be unaffected by the footprint of the development. Turbine Eight lies directly to the west of the asset but its footprint and related infrastructure does not affect its location and it will not be subject to a significant effect.
Non-designated historic asset: Bridge abutments on the route of the former Talywain Railway (GGAT03276.1)	Whilst located within the Site, with reference to the Layout Plan (Figure 1.2) the bridge abutments are located outside of the footprint of the route that will cut across land to the immediate south. As such the abutments will be unaffected by the Proposed Development.
Non-designated historic asset: The British Ironworks Extractive Area (GGAT EA112)	Part of the grid connection corridor passes through this extensive former industrial area. The very limited footprint of the grid connection cable trench would result in only a very small, localised impact upon spoil tips as it passes across them and overall this would have little implication for the heritage value of this asset. As such there is no potential for a significant effect and it is not considered any further.
Non-designated historic asset: Lower Navigation Colliery Railway bridge (NMRW 85078)	The access route passes across the bridge, the upper part of which is modern. No works are proposed to the bridge, so its historic underparts would be unaffected. As such there is no potential for a significant effect and it is not considered any further.
Non-designated historic asset: Site of former buildings at the 'Traveller's Rest'	Whilst it is located within the Site, Layout Plan (Figure 1.2) shows that the site of the former buildings would be unaffected by the footprint of the development. No turbines or related infrastructure are proposed for the area of the former buildings and just an improved access track is proposed to run past them. As such there is no potential for a significant effect and the site is not considered further.

7.8 Assessment methodology

- 7.8.1 The generic project-wide approach to the assessment methodology is set out in **Chapter 2: Approach to Preparing the Environmental Statement**. However, whilst this has informed the approach that has been used in this Historic Environment assessment, it is necessary to set out how this methodology has been applied, and adapted as appropriate, to address the specific needs of this Historic Environment assessment.
- 7.8.2 In this respect, the approach which has been employed is based on that set out in *LA 104 Environmental Assessment and Monitoring* and *LA 106 Historic Environment Assessment* of the Design Manual for Roads and Bridges (DMRB)²⁰.
- 7.8.3 The identification and then evaluation of potentially significant effects on historic assets depends on a combination of the sensitivity (also referred to as 'value' or in respect of PPW 'significance' where the term 'significance' is not used in an EIA context as it could

²⁰National Highways, 2020. Available at: <https://www.standardsforhighways.co.uk/dmrb/> (Accessed October 2022)

be confused with the ‘significance of effect’) of the asset and the magnitude of change that is predicted to result from the implementation of the development. The assessment of likely significant effects as a result of the development takes into account both the construction phase and the completed occupation phase.

7.8.4 In the first instance, the assessment attributes ‘sensitivity’ to archaeological and Historic Environment assets, as shown in **Table 7.9**.

Table 7.9 Sensitivity of Receptor

Receptor	Sensitivity of receptor				
	Very High	High	Medium	Low	Negligible
World Heritage Site (its OUV and other values)					
Scheduled Monument					
Grade I or II* listed building					
Grade I or II* registered park or garden					
Other nationally important archaeological asset					
Grade II listed building					
Grade II registered park or garden					
Conservation Area					
Other asset of regional or county importance					
Locally important asset with cultural or educational value					
Heritage site or feature with very limited value or interest					

7.8.5 The classification of the magnitude of change to historic assets is based on consistent criteria and takes account of such factors as the physical scale and type of disturbance and whether features or evidence would be lost, damaged or degraded that are fundamental to their historic character, integrity and therefore, significance.

7.8.6 Both physical and non-physical (e.g. visual) changes to historic assets are considered. The magnitude of impact is assessed using the criteria in **Table 7.10**. This table is derived from that at 3.4N in LA 104 (DMRB, 2020).

Table 7.10 Magnitude of Change

Magnitude of Change		Description
Large	Adverse	Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements.
	Beneficial	Large scale or major improvement of resource quality; extensive restoration; major improvement of attribute quality.
Medium	Adverse	Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements.
	Beneficial	Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality.
Small	Adverse	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements.
	Beneficial	Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring.
Negligible	Adverse	Very minor loss or detrimental alteration to one or more characteristics, features or elements.
	Beneficial	Very minor benefit to or positive addition of one or more characteristics, features or elements.
No change		No loss or alteration of characteristics, features or elements; no observable impact in either direction.

7.8.7 Following the evaluation of the sensitivity of specific Historic Environment receptors, and the magnitude of the impact upon them, the significance of the effect will be assessed using the criteria outlined in **Table 7.11**.

Table 7.11 Significance of Effect

Magnitude of Change	Sensitivity of Receptor				
	Very High	High	Medium	Low	Negligible
Large	Major	Major	Major or Moderate	Moderate or Minor	Minor
Medium	Major	Major or Moderate	Moderate	Minor	Minor or Neutral
Small	Major or Moderate	Moderate or Minor	Minor	Minor or Neutral	Minor or Neutral
Negligible	Minor	Minor	Minor or Neutral	Minor or Neutral	Neutral
No Change	Neutral	Neutral	Neutral	Neutral	Neutral

7.8.8 The assessment matrix defined in **Table 7.11** is not intended to be ‘prescriptive’, but rather it allows for the employment of professional judgement to determine the most appropriate level of effect for each historic asset that is identified.

7.8.9 Effects are categorised with regard to their nature (adverse, beneficial or neutral) and their permanence (permanent, temporary or reversible). For all forms of historic asset (receptor); including archaeological sites and remains; historic buildings, places and areas; and historic landscapes; the sensitivity of the receptor is combined with the predicted magnitude of change to arrive at the significance of effect.

7.8.10 The combination of sensitivity and magnitude of change is undertaken with reference to the matrix in **Table 7.11**, with those effects defined as Major would be significant, with Moderate effects defined as potentially significant whereby professional judgement is used to assess whether the Moderate effect in question should be considered significant. All other effects are determined to be not significant in EIA terms.

7.9 Assessment of Historic Environment effects

7.9.1 The following sections assess the likely significant effects of the Proposed Development on the Historic Environment for assets scoped into the assessment in **Table 7.7** above, with the mitigation measures embedded into the proposed design considered.

7.9.2 These likely significant effects have been assessed in terms of effects during construction, where direct impacts may be anticipated, and during the operational phase where impacts, in terms of an asset’s setting, are expected.

7.9.3 In each case, the assessment will identify whether the predicted effects on historic assets are adverse or would in fact be beneficial and deliver an enhancement.

Construction Phase effects

- 7.9.4 There will be no direct physical impact from any aspect of the Proposed Development on any designated historic asset.
- 7.9.5 In respect of non-designated historic assets, it should be considered that turbines 3, 4, 6 and 7 are all positioned on land that was reinstated after open cast coal mining in the mid-20th century. As such, none of these turbines or their immediate infrastructure will result in any direct construction phase impacts upon any non-designated historic assets or unrecorded archaeological remains.
- 7.9.6 Nevertheless, potential effects are identified and assessed below for the historic assets located within the Site as identified in **Section 7.7**.

Building at Pen Tranch and sheep pens (GGAT06902g: NMRW 421322) – **Low Sensitivity**

- 7.9.7 The stone walled sheep pens at Pen Tranch would be removed and replaced with an open gravel surfaced construction compound. This would result in the total destruction of these structures. This work would affect only the sheep pens to the west of the ruined buildings and not the building itself or the enclosure within which it is located. Therefore overall, the magnitude of change accounts for only a partial impact.
- 7.9.8 With reference to **Table 7.10**, this would result in a Large magnitude of change. With reference to **Table 7.11** a Small magnitude of change to a historic asset of Low sensitivity would result in a Minor or Neutral effect.
- 7.9.9 It is considered that due to the total loss of some of the remains at Pen Tranch, albeit walls that are of a commonly found type and not of any particular special quality or function and, have very limited intrinsic, evidential heritage value, the effect would be a **Minor** effect that is not significant.

Historic landscape: Cwm Du: **Low sensitivity**

- 7.9.10 Within the area of relict post-medieval landscape at Cwm Du, the following direct impacts would occur:
- Loss of the stone walls at Pen Tranch (a contributing part of the historic landscape) due to the construction compound's preparation;
 - Resurfacing of an existing track; and
 - Changes to field boundaries at field entrances (widening).
- 7.9.11 This would result in a Medium magnitude of change. A Medium magnitude of change to a historic asset of Low sensitivity would result in a **Minor** effect that is not significant.

Historic landscape: Cwm Cynw: **Low sensitivity**

- 7.9.12 Within the area of relict post-medieval landscape at Cwm Cynw, the following direct impact would occur:
- Resurfacing of existing track.
- 7.9.13 This would result in a Small magnitude of change. A Small magnitude of change to an historic asset of Low sensitivity would result in a Minor or Neutral effect. This is assessed as a **Minor** effect that is not significant.

Historic landscape: Craig Du field: **Low** sensitivity

- 7.9.14 Within the Craig Du field historic landscape area, the following direct impacts would occur:
- Loss of historic hedgerows due to construction associated with Turbine 5; and
 - Resurfacing of existing track.
- 7.9.15 This would result in a Medium magnitude of change. A Medium magnitude of change to a historic asset of Low sensitivity would result in a **Minor** effect that is not significant.

Unrecorded archaeological remains

- 7.9.16 Limited intrusive groundworks would take place in specific areas across the Site, including:
- Upgrading of existing tracks and construction of new access tracks and passing places inter-linking the turbine locations and substation;
 - Temporary site compound;
 - Wind turbine foundations;
 - Wind turbine crane hard standing, with adjacent blade storage areas;
 - Cable trenches; and
 - Switchroom and substation compound.
- 7.9.17 Works of this nature would adversely affect the preservation of any surviving previously unrecorded sub-surface archaeological remains in their footprint(s), reducing or removing their ability to be understood or interpreted. This would result in, at worst, a loss of archaeological interest in specific areas of the Site.
- 7.9.18 With reference to the baseline assessment, it is unlikely that the Site contains unrecorded archaeological remains specifically located within the footprint of the proposed development that are greater than **Low** sensitivity.
- 7.9.19 As a worst-case scenario, total destruction of archaeological remains would result in a Large magnitude of change. A Large magnitude of change to a historic asset of Low sensitivity would result in a Moderate or Minor effect.
- 7.9.20 With regard to the statement at Note 1 in LA 106 (DMRB, 2020) that *'the effect on the Historic Environment resource is not significant when the impact does not substantially diminish the heritage interest of the Historic Environment resource'*, it is considered that, due to the total loss of any remains, the effect could (depending on the sensitivity of the archaeological asset in question) represent a **Moderate** effect. Whether this effect is significant would again depend on the nature, evidential value and thus the sensitivity of the archaeological asset. Generally, it is unlikely that archaeology would be encountered and destroyed that would result in a significant effect in EIA terms.

Operation Phase Effects

- 7.9.21 This section assesses the likely significant environmental effects of the Proposed Development following completion, with embedded design mitigation in place. It defines the sensitivity of historic assets that are receptors to the indirect effects of development; i.e. through changes to their setting such that its contribution to their significance is affected. It then defines the significance of the effect on these receptors.

- 7.9.22 Effects from change to the settings of historic assets can occur during the construction phase as well (such as the erecting of cranes, vehicle movements etc..) but these are almost always temporary changes and thus rapidly reversed. It is better to assess changes to setting following development completion as that is typically the worst-case scenario.
- 7.9.23 This part of the Chapter represents Stages 3 and 4 of the Setting Assessment Process (Cadw, 2017a) as it relates to the effect of the Proposed Development on heritage receptors. Stages 1 and 2 of the process have been discussed in **Section 7.5** above and described in full in the Archaeological and Heritage Baseline Assessment at **Appendix 7A**.
- 7.9.24 The magnitude of change is viewed in conjunction with the sensitivity of the historic assets, to appreciate and determine the overall significance of effect. Assessing the significance of effects uses the matrix illustrated in **Table 7.11** above.

Blaenavon Industrial Landscape World Heritage Site (BILWHS): **Very High Sensitivity**

- 7.9.25 Effects on the BILWHS are assessed in detail within the HIA (**Appendix 7B**) with the impact assessment detailed qualitatively in that document and with reference to the same assessment methodology as used within this Draft ES Chapter.
- 7.9.26 In summary, the HIA concludes that the Proposed Development would result in a single impact upon the various attributes and values that comprise the overall OUV of the BILWHS comprising a Moderate Adverse effect to its Aesthetic and Visual Value (as defined in the *Blaenavon World Heritage Site Management Plan 2011 – 2016*²¹).
- 7.9.27 This would occur as the turbines would introduce a new modern element, including movement as the blades turn, into views south from the more elevated parts of the BILWHS across the existing upland scene, which would be eye-catching, even though the nearest turbine to the BILWHS would actually be 3.75km to the south. This impact is described in detail in the HIA at **Appendix 7B**.
- 7.9.28 In terms of the overall OUV of the BILWHS the HIA concludes that the Proposed Development will affect only one of the WHS's values and none of its other attributes nor will its authenticity or integrity be affected and the effect is entirely in respect of the WHS's wider setting. Even then, the Proposed Development will change only one part of what is a very wide setting and for the most part will not be visible from most of the WHS, including from its core areas of heritage value.
- 7.9.29 The 2022 ICOMOS guidance (*Guidance and Toolkit for Impact Assessments in a World Heritage Context*) at Section 6.9 (2022) states that in respect of the evaluation of impacts upon the OUV, the assessment:
- “...should result in a clear conclusion about whether the likely impacts of a proposed action on OUV overall are acceptable or not. If the proposed action would have negative impacts on OUV, the report should give one of three conclusions:*
- *The negative impact would be negligible and raises no concerns;*
 - *The negative impact would be significant, but with avoidance and mitigation measures it could be eliminated or minimised to an acceptable level; and*
 - *The negative impact would be significant and could not be avoided or mitigated, to the proposed action should not proceed.”*

²¹Torfaen County Borough Council, 2011. Available from <https://whc.unesco.org/en/list/984> (Accessed October 2022)

- 7.9.30 In this regard, given the very limited overall impact, the Magnitude of Change to the OUV is assessed at Negligible Adverse. A Negligible Change to an asset of Very High value (in this case the WHS's OUV) would result in a **Minor** Adverse effect that is not significant. This assessment therefore accords with the first conclusion as set out in the ICOMOS guidance that *'The negative impact would be negligible and raises no concerns'* and should therefore be acceptable regarding the preservation of the OUV.
- 7.9.31 The HIA was informally reviewed by Neil Maylan of Cadw in October 2022. Following a telephone conversation it was reported that the review did not identify any issues with the assessment's methodology and broadly, agreement was expressed with the report's conclusions.

Blaenavon Landscape of Outstanding Historic interest: **Medium** sensitivity

- 7.9.32 Effects on the BLOHI are assessed within the HIA (**Appendix 7B**) and the baseline assessment is detailed qualitatively in that document.
- 7.9.33 The Proposed Development would introduce wind turbines into the experience of views from Historic Landscape Character Area (HLCA) 020 and, additionally but to a lesser degree, from other HLCAs (e.g. HLCAs 011, 017, 018 and 019) where there is an elevated landscape and where extensive views southwards are possible.
- 7.9.34 The Proposed Development would introduce a modern, moving element into these views which otherwise do not contain any wind turbines of a comparable size, although the general upland character of the landscape as it is currently experienced and as defined by Mynydd Llanhilleth would not change. In addition, it is also apparent that other, smaller wind turbines are already present in the view (certainly from HLCA 020) so the turbines would not introduce an entirely new form into this landscape.
- 7.9.35 In this regard, the upper parts of Mynydd Llanhilleth and part of the Site, which form an element of the wider setting of the BLOHI, would retain their open, upland character and thus their cohesion with HLCA 020. The wind turbines would be distant enough from the BLOHI (2.75 km to the south) so as to not have a strong visual influence on the character of any of its component HLCAs to an extent that their character might be significantly changed, or to distract from an appreciation of any of the individual historic assets that make up these HLCAs.
- 7.9.36 The turbines would form a part of the view to the south and would slightly modernise the character of that view. However, this change to the BLOHI's wider setting would not be such that it would have a noticeable influence on the nature of the BLOHI's wider setting which, to the south, would continue to comprise a broad upland landscape which would still be appreciable as a continuation of the upland contained within HLCA 020 which already has, albeit smaller, wind turbines within it.
- 7.9.37 Set within that context, the assessment concludes that the implementation of the proposed development would result in 'No Change' and a **Neutral** effect on the BLOHI.

Scheduled monument: Cwmybyrgwm Colliery (MM163: 2396) (including Grade II listed building Chimney to Cwmybyrgwm Colliery): **High** sensitivity

- 7.9.38 The Proposed Development would result in several turbines (turbines 1, 2 and a small part of 5) being visible in views towards the scheduled monument from the east and north-east, with the Site in the background. The nearest turbine would be c.620m to the south of the monument. This is best illustrated by the LVIA Photoviewpoint 7 where, although taken from within the urban edge of Abersychan to the north-east, the top of the Grade II listed chimney is visible in the background. From beyond the housing, the chimney would

be much more prominent in the view, as would the spoil tips and other earthwork remains related to the former colliery.

- 7.9.39 With regard to the setting assessment at Paragraphs 5.42 – 5.48 in the report at **Appendix 7A**, the Proposed Development would not result in any change to the associative relationships that the monument has with other contemporary industrial era remains in the locality. The turbines would not be situated between the monument and any associated remains and, as the associations are predominant non-visual, their presence would not distract from the appreciation of the monument in relation to its associated former industrial era context.
- 7.9.40 The Proposed Development would also not affect the openness of the surroundings of the Grade II listed chimney which would continue to be appreciable in views from across the locality. However, the presence of the turbines in the background in views towards the chimney would introduce large moving structures into the view and thus these would become part of the experience of the chimney and the monument and would hence change its setting. The turbines would be visually distracting and would thus diminish the prominence of the chimney to a small degree as the eye is drawn to the turbines located above the chimney. This effect may reduce the degree to which the chimney is perceived as a local landmark by which it symbolises the industrial history of the locality.
- 7.9.41 Nevertheless, the chimney's visual presence and aesthetic value is but one aspect of the monument's overall heritage value, with its primary source of value being its high degree of evidential value that would be unaffected. Given that the chimney would still be appreciable, the distracting effect of the turbines in the background would be relatively minor in terms of the asset's overall heritage value.
- 7.9.42 The impact assessed is a minor adverse change to its value through change within its setting and would result in a Small, adverse magnitude of change.
- 7.9.43 A Small magnitude of change to a historic asset of High sensitivity would result in a Moderate or Minor adverse effect. However, with regard to the statement at Note 1 in LA 106 (DMRB, 2020) that *'the effect on the Historic Environment resource is not significant when the impact does not substantially diminish the heritage interest of the Historic Environment resource'* it is noted that, due to the majority of the asset's value being unaffected, the impact would not substantially diminish the asset's heritage interest. As such, the overall effect is assessed as **'Minor'** and not a significant effect.

Scheduled monument: St Illtyd's Castle Mound (MM141: 2381): **High sensitivity**

- 7.9.44 The Proposed Development may result in parts of turbines (the nearest being c.1.6 km to the east) being visible from the track adjacent to the monument, however from the mound itself, views towards the development would be screened by the immediately adjacent large modern agricultural buildings.
- 7.9.45 The closest LVIA viewpoint is RVAA Photoviewpoint 37, which is from c.150m further to the east of the scheduled monument adjacent to the entrance to Hafod Arthan, but it still illustrates that the tops of turbines would generally be visible from open locations with the village of St Illtyd.
- 7.9.46 With reference to the setting assessment at Paragraphs 5.55 to 5.61 in **Appendix 7A**, the Proposed Development would have no effect on the key elements of the mound's setting that contribute to its heritage value. The visual association with the nearby, historically associated, church would be unaffected, and equally there would be no effect on the mound's topographic situation overlooking land to the west (directly away from the Proposed Development), which was probably relevant to the military strategy underpinning its location.

- 7.9.47 Partial views of distant turbines located in a direction (east) looking away from the monument would not distract from an appreciation of the monument from the adjacent roadside, the location from where it can be best experienced.
- 7.9.48 With these considerations in mind, the Proposed Development would not result in a change to the monument's setting that would result in an effect on those aspects of its setting that contribute positively to its value. As such, the assessment concludes that there would be No Change to this asset and a **Neutral** effect following completion.

Listed building: St Illtyd's Church (Grade II*; Cadw Ref. 1866): **High** sensitivity

- 7.9.49 The Development would result in parts of turbines (the nearest c.1.4 km to the east) being visible from the track adjacent to the church, to the right and in the background between and above other elements of the landscape (buildings and trees).
- 7.9.50 The closest LVIA viewpoint is RVAA Photoviewpoint 37, which is from c.50m further to the east from the church adjacent to the entrance to Hafod Arthan but which illustrates that the tops of turbines would generally be visible from open locations with the village of St Illtyd.
- 7.9.51 With reference to the setting assessment at Paragraphs 5.55 to 5.61 in the report at **Appendix 7A**, the Proposed Development would have no effect on the experience of the church in relation to its surrounding churchyard or the older buildings in the village which reflect its historic context.
- 7.9.52 The partial visibility of turbines in the background of views of the church from the west would introduce tall, moving modern structures into the view, albeit they would be fairly distant. The moving turbines would be eye-catching and would distract from an appreciation of the church's architecture and presence as a key historic building within the village.
- 7.9.53 However, on the other hand, the church would remain locally prominent and, as the turbines would only form a part of the wider background and not imposing heavily into the visual appreciation of the building, this distracting effect would be limited.
- 7.9.54 The impact would represent a minor adverse change to the church's value through change within its setting and would result in a Small Adverse magnitude of change. A Small magnitude of change to a historic asset of High sensitivity would result in a Moderate or Minor effect.
- 7.9.55 With regard to the statement at Note 1 in LA 106 (DMRB, 2020) that '*the effect on the Historic Environment resource is not significant when the impact does not substantially diminish the heritage interest of the Historic Environment resource*', it is noted that, due to the effect being a peripheral effect on the asset's wider setting, the majority of the asset's setting would be unchanged and it would continue to be experienced much as it is at present, as a historic church in a village setting, albeit with minor distracting modern forms in the background away to the east. As such, the overall effect is assessed as '**Minor**' and not significant.

Registered Park and Garden: Grade II* Pontypool Park (PGW (Gt) 26): **High** sensitivity

- 7.9.56 The Proposed Development would result in turbines being visible in views westwards from the park that include Mynydd Llanhilleth. The nearest turbine would be c.3.3 km to the west of the park. This includes views from open areas (i.e. areas that are not wooded) on the higher north-eastern part of the park and quite clearly in views from the detached part of the park at the folly. Whilst no LVIA view have been taken from within the main part of

the park, Photoviewpoint 16 is from adjacent to the folly. In this view and its associated montage, the full development is visible.

- 7.9.57 With reference to the setting assessment at Paragraphs 5.102 to 5.117 in the report at **Appendix 7A**, the Proposed Development would have no effect on the 'essential setting' of the park to the east or on any views out across the landscape in that direction. It is also highly likely that from most of the park the turbines would be screened by trees being as the park is heavily wooded.
- 7.9.58 In the views towards the turbines, whilst no existing turbines are visible, the views already include modern elements, such as parts of the adjacent townscape at Pontypool and so the turbines would not be distinct as the only modern aspects in these views.
- 7.9.59 The presence of the turbines in the various views from the park, including from the detached area around the folly, would result in tall, moving modern structures being present in the view where such structures do not presently exist. In that sense, the turbines would distract from an appreciation of the wider countryside in views from the park, although localised views across the park's interior to its various features would not be affected.
- 7.9.60 As described in **Appendix 7A**, the key historic assets within the park would individually be unaffected by the development due to localised screening of views.
- 7.9.61 Given that the views to the Proposed Development would be only from specific locations and would not include any of its key historic assets, whilst the park's essential setting would be unaffected, the change to views out to the west from the park would only result in a limited depreciation of the park's aesthetic quality, distracting to only a small degree from an appreciation of its character as a rustic Victorian park.
- 7.9.62 This impact is assessed as a Small Adverse magnitude of change. A Small magnitude of change to a historic asset of High sensitivity would result in a Moderate or Minor effect.
- 7.9.63 With regard to the statement at Note 1 in LA 106 (DMRB, 2020) that *'the effect on the Historic Environment resource is not significant when the impact does not substantially diminish the heritage interest of the Historic Environment resource'* it is considered that, in view of the Proposed Development not being visible from most of the park and much of the historic asset's value and setting remaining unchanged and unaffected, the overall effect is assessed as **'Minor'** and that is not a significant effect.

Listed building: Hafod-arthen (Grade II; Cadw Ref. 1867): **Medium** sensitivity

- 7.9.64 The Proposed Development would result in turbines (the nearest being c.1.3 km to the east) being visible in the background in views of the listed building from the west. It is also certain that turbines would be visible directly from the listed building in views eastwards, predominantly turbines 2, 3 and 4. The closest LVIA viewpoint is RVAA Photoviewpoint 37 which is from c.100m to the north-west of the listed building adjacent to the entrance to Hafod-arthen's access track. The wireframe associated with this view clearly shows that turbines would be visible above the buildings and in views to the east.
- 7.9.65 Whilst turbines would form a part of the wider setting of the farmhouse and would be prominent in views to the house and from it, it is apparent that the house is principally a functional building that was not designed with architecture that was meant to be appreciated in views. Rather, the views to it allow the house to be appreciated as a historic farmhouse set within tracts of historically and functionally associated farmland and adjacent to related outbuildings and gardens. The presence of turbines, whilst distracting from an appreciation of the house (particularly due to their movement), would not diminish

the experience of the house in relation to its setting of farmland and outbuildings which would be as appreciable as it is at present.

- 7.9.66 The impact assessed is an adverse change to the asset's value through change within its setting and would result in a Small Adverse magnitude of change.
- 7.9.67 A Small magnitude of change to a historic asset of Medium sensitivity would result in a **Minor** effect that is not a significant effect.

Listed building: Ty-Ilwyd (Grade II; Cadw Ref. 22672): **Medium** sensitivity

- 7.9.68 With reference to the description of the asset's setting given in Paragraphs 5.87 – 5.90 in **Appendix 7A**, the Proposed Development would be screened in views from the former farmhouse by the trees and hedges that surround it. Due to this vegetation, the house is not especially prominent and views to it would not be possible that also includes the distant turbines.
- 7.9.69 As such, the relatively distant presence of wind turbines would not distract from the experience or appreciation of the house. The proposed development would have no effect on the immediate fields around the buildings that are historically and functionally associated with it.
- 7.9.70 With these considerations in mind, it is assessed that the Proposed Development would result in a magnitude of No Change and a **Neutral** effect on the value of the Grade II listed building.

Non-designated historic building: Gilfach Wen Farm and Barn (GGAT06399g): **Low** sensitivity

- 7.9.71 Gilfach Wen farmhouse and barn are set in a fairly open location surrounded by historically and functionally associated farmland on the upper slopes of Cwm Llwydrew. LVIA Photoviewpoint 10 captures a distant view of the farmhouse but one which illustrates well its setting, occupying farmland on slopes above the forested valley. The wireframe associated with the viewpoint illustrates how the turbines (located c.700m to the east of the house) would be highly visible and rise above the house and its associated land to the east.
- 7.9.72 The proposed turbines would not impose upon the surrounding fields, which represent an element of the house's setting that contributes positively to its heritage value. However, they will add a large, moving modern element into the house's wider setting that will distract from an appreciation of it and of its rural hillside setting.
- 7.9.73 As such, due to the prominence of the turbines in relation to the non-designated house, the impact assessed is a Medium Adverse magnitude of change. A Medium magnitude of change to a historic asset of Low sensitivity would result in a **Minor** effect which is not significant.

Non-designated historic building: Ty-Dafydd (GGAT06401g): **Low** sensitivity

- 7.9.74 Ty-Dafydd cottage is also set in a fairly open location surrounded by historically and functionally associated farmland on the upper slopes of Cwm Llwydrew. LVIA Photoviewpoint 10 captures a distant view of the cottage, but one which illustrates well its setting, occupying farmland on slopes above the forested valley. The wireframe associated with the viewpoint clearly illustrates how the turbines (located c.450m to the south-east of the cottage) would be highly visible rising above the cottage and its associated land to the east.

- 7.9.75 The turbines would not impose upon the surrounding fields, which represent an element of the cottage's setting that contributes positively to its heritage value. However, they will add a large, moving modern element into the cottage's wider setting that will distract from an appreciation of it and of its rural hillside setting.
- 7.9.76 As such, due to the prominence of the turbines in relation to the non-designated cottage, the impact assessed is a Medium Adverse magnitude of change. A Medium magnitude of change to a historic asset of Low sensitivity would result in a **Minor** effect that is not a significant effect.

Non-designated historic building: Blaen Cyffin (GGAT04910g): **Low** sensitivity

- 7.9.77 Blaen Cyffin farmhouse are set amongst trees, agricultural fields and spoil tips related to former mining activity on the north side of the upper slopes at the head of the valley of the Nant Cyffin. In that respect, **Photograph EDP 5** in **Appendix 7A**. illustrates the setting of the house, where the surrounding valley landscape provides localised views to the house and relict industrial remains form part of the house's historic context.
- 7.9.78 The proposed turbines would be located c.800m to the east and south-east and thus would be well-removed from the immediate setting of the house and would have little presence in its wider setting, where the house is best experienced in views to the north-west across the adjacent valley and away from the turbines. Furthermore, to the east of the house is a small area of trees that would probably screen views directly to the turbines.
- 7.9.79 The turbines would not impose upon the surrounding fields, industrial remains and valley slopes which represent an element of the house's setting that contributes positively to its heritage value. Due to their distance from the house, and local screening by trees, they would have little presence in views from the house and would be very peripheral in its wider setting. As such, there would be a Negligible Adverse magnitude of change.
- 7.9.80 A Negligible magnitude of change to a historic asset of Low sensitivity would result in a Minor or Neutral effect. Given the lack of presence in the house's setting, the effect is assessed as a **Neutral** effect that is not a significant effect.

Non-designated historic building: Maes-y-Cnyw Farm (GGAT02093g): **Low** sensitivity

- 7.9.81 Maes-y-Cnyw farmhouse is set adjacent to rough pasture and woodland, as well as former industrial land. It is located on the upper part of a ridge between the valley of the Nant Cyffin to the north-west and the Cwm Cnyw to the south-east. It is surrounded by historically and functionally associated woodland and farmland which represent an element of the house's setting that contributes positively to its heritage value. LVIA Photoviewpoint 11 captures a distant view of the farmhouse, but one which illustrates its setting, particularly the wooded nature of its immediate surroundings.
- 7.9.82 The wireframe associated with the viewpoint illustrates how the turbines (with turbine 8 located c.600m to the east of the house) would be highly visible and rise above the hills to the east, certainly in longer views to the house. It is doubtful that views from the house directly to the turbines would be readily available, as there is woodland directly to the east in the direction of the turbines, but it is likely that partial views would be available given the size of the turbines.
- 7.9.83 The turbines would not impose directly upon the surrounding fields which represent an element of the house's setting that contributes positively to its heritage value. However, they will add a large, moving modern element into the house's wider setting that will distract from an appreciation of it and its rural hillside setting.

- 7.9.84 As such, although prominent, the turbines are fairly distant from the house and, it is assessed that there would be a Small Adverse magnitude of change. A Small magnitude of change to a historic asset of Low sensitivity would result in a Minor or Neutral effect. Given the presence of the turbines and the likelihood for at least partial views to them from the house, the assessment concludes a **Minor** and non-significant effect.

Non-designated historic building: Blaen-y-cwm (GGAT04914g): **Low** sensitivity

- 7.9.85 Blaen-y-cwm farmhouse is a ruin now set on the edge of a coniferous plantation adjacent to open pastoral farmland at the head of the Blaen-y-cwm valley. In that regard, **Photograph EDP 11** in **Appendix 7A** illustrates the setting of the valley where the ruin is located to the left of the modern house. The surrounding valley landscape provides localised views to the house and the relict agricultural landscape remains form the house's former historic context, contributing to its value. As a ruin with little prominence, views across to the wider landscape have little relevance to the former building's heritage value.
- 7.9.86 The proposed turbines 6 and 7 would be located c.650m to the east and thus would be well-removed from the immediate setting of the ruin. LVIA Photoviewpoint 5 illustrates these turbines from further south along the valley and shows how on account of their size they would be very prominent in views across the valley. However, as noted above, as a ruin the asset has little visual presence and so wider views from or in association with it, where the turbines would be visible, have little relevance to its heritage value.
- 7.9.87 The turbines would not impose upon the surrounding fields or woodland which represent elements of the ruin's setting that contribute positively to its heritage value. Due to the lack of relevance of wider views to the asset's setting the assessment, it is concluded that the Proposed Development would result in No Change and a **Neutral** effect on this unlisted building.

Non-designated historic building: Gelli-Deg (GGAT04917g): **Low** sensitivity

- 7.9.88 Gelli-Deg farmhouse is set within a modern farm adjacent to outbuildings and surrounded by fields of pasture bounded by hedgerows on sloping land to the east of the valley of the Nant Cyffin. LVIA Photoviewpoints 5 and 6 illustrate the hillsides to the west and east of the farm, where the farm is situated just between the two images. The images illustrate the appearance of the fields of open hillside pasture that predominate in the farmhouse's setting.
- 7.9.89 The wireframes and montages associated with the two viewpoints together illustrate how the turbines (with turbine 7 the closest at c.400m to the north of the house) would be highly visible and rise above the hill to the north. It is likely that, due to its proximity and size, at least turbine 7 would be visible directly from the farmhouse rising above nearby buildings and hedgerows.
- 7.9.90 The turbines would not impose directly upon the surrounding fields which represent an element of the house's setting that contributes positively to its heritage value. However, they would add a large, moving modern element into the house's wider setting that would distract from an appreciation of it and of its rural hillside setting. As such, it is assessed that there would be a Moderate Adverse magnitude of change to this asset.
- 7.9.91 A Medium magnitude of change to a historic asset of Low sensitivity would result in a **Minor** effect that is not a significant effect.

Historic landscape: Cwm Du: **Low** sensitivity

- 7.9.92 Turbines 1 and 2 and their associated infrastructure would impose heavily on the preserved post-medieval landscape at Cwm Du. The two turbines would be large dominant modern forms directly occupying fields on the valley sides. Their movement and noise would be very noticeable from all parts of the adjacent land identified as possessing historic character. Furthermore, the fields would be crossed by an improved access track and occupied by a substation within a stoned and fenced compound further modernising the landscape.
- 7.9.93 As much as the turbines would dominate the locality, it is noted that hedgerow loss would nonetheless be minimal and thus the present layout of fields would still be discernible, albeit with the sheep pens removed.
- 7.9.94 Due to the dominant presence of the turbines and their related infrastructure, which would cause considerable change to the character of the landscape at the head of Cwm Du, the Magnitude of Change is assessed as Large.
- 7.9.95 A Large magnitude of change to a historic asset of Low sensitivity would result in a Moderate or Minor effect. Given the prominence of the turbines in the historic landscape area, which is valued for its preserved post-medieval historic character that would be heavily altered, the assessment concludes a **Moderate** effect. However, on account of the relatively low value of the historic landscape in this location (in so much as it is a commonplace landscape type) although heavily altered, the change to it would be very localised and of little relevance to the wider historic environment. As such, it is assessed as not comprising a significant effect.

Historic landscape: Cwm Cynw: **Low** sensitivity

- 7.9.96 Turbine 8 would be situated within the fields at the head of the valley. The turbine would be highly prominent in views across the valley from the north-west, although mining remains on the lower slopes would still be evident.
- 7.9.97 Likewise, from across Crib Cefn common to the south-east, the turbine would be a dominant feature and its movement and noise would be very noticeable. In this regard, the open, pastoral landscape at this locality would be modernised to a degree, although the underlying nature of the landscape would remain and there would be no loss of historic features.
- 7.9.98 Due to the prominence of turbine 8 in views across this area and the change that this would bring to the character of the locality, the Magnitude of Change is assessed as being Large adverse.
- 7.9.99 A Large magnitude of change to a historic asset of Low sensitivity would result in a Moderate or Minor effect. Although the turbine would be prominent, the lack of any loss of landscape features would ensure that the underlying post-medieval historic landscape would remain, albeit with its character heavily altered. As such, the assessment concludes a **Minor** effect that is not significant.

Historic landscape: Craig Du field: **Low** sensitivity

- 7.9.100 Turbine 5 and its associated infrastructure would impose heavily on this small area of preserved post-medieval landscape at Craig Du. The turbine would disrupt the small field system in this location, with part of the hedgerow lost, whilst its movement and noise would be very noticeable from all parts of the adjacent land identified as possessing historic character.

- 7.9.101 Due to the dominant presence of the turbines and their related infrastructure, which would cause considerable change to the character of the landscape at Craig Du, the **Magnitude of Change** is assessed as Large.
- 7.9.102 A Large magnitude of change to a historic asset of Low sensitivity would result in a Moderate or Minor effect. Given the prominence of the turbines in the historic landscape area, which is valued for its preserved post-medieval historic character that would be heavily altered, the assessment concludes a **Moderate** effect. However, on account of the relatively low value of the historic landscape in this location (in so much as it is a commonplace landscape type) although heavily altered, the change to it would be very localised and of little relevance to the wider historic environment. As such, it is assessed as not comprising a significant effect.

Historic landscape: Blaen Nant y Caws: **Low** sensitivity

- 7.9.103 Whilst none of the proposed turbines would be situated within this historic landscape area, it is noted that turbine 6 would be situated within the fields immediately adjacent to the west, with turbine 7 a short distance to the south.
- 7.9.104 Turbine 6 would be highly prominent in views west across the Nant -y -Caws valley, including from the modern Blaen Nant-y-Caws house and it is likely that its movement and noise would be very noticeable. In this regard, views across the pastoral landscape of enclosed fields at this locality would be modernised to a degree, but the landscape and its features would remain. The turbine would not be visually present when experiencing the valley in views to the east and away from it.
- 7.9.105 Due to the prominence of turbines 6 and 7 in views across this area, and the change that this would bring to the character of the locality, the **Magnitude of Change** is assessed as Large.
- 7.9.106 A Large magnitude of change to a historic asset of Low sensitivity would result in a Moderate or Minor effect. Although the turbines would be prominent, due to their location outside of the area identified as possessing historic landscape character and thus lack of any loss of landscape features, the assessment concludes a **Minor** effect that is not significant.

7.10 Assessment of cumulative (inter-project) effects

- 7.10.1 A cumulative effects assessment (CEA) will be undertaken for the Project which considers the combined impacts with other developments on the same single receptor or resource (inter-project effects). The detailed method followed in identifying and assessing potential cumulative effects is set out in **Section 3.9 of Chapter 3**.
- 7.10.2 The assessment considers effects from the Proposed Development in combination with effects assessed to the same receptors from the list of sites in **Chapter 3**.
- 7.10.3 The assessment considers only operational phase effects, as direct construction phase effects only arise from impacts upon historic assets within the footprint of the Proposed Development. As noted previously indirect effects can occur during construction but such effects are identified and assessed within the operational phase assessment where change to settings reach their fullest and most permanent form, thus the assessment captures the worst-case scenario over the longer term. As such, given that no developments are proposed in the immediate vicinity of the Site and, as the cumulative assessment is focused on other wind turbine developments, it is not possible for the same assets to be affected by other wind energy development assessed in this section.

- 7.10.4 The assessment considered the potential for cumulative effect on each asset assessed as receiving an operational phase effect from the Proposed Development.

Blaenavon Industrial Landscape World Heritage Site (BILWHS)

- 7.10.5 Several other wind energy projects are proposed in the wider vicinity of the Site that may also result in changes to the wider setting of the BILWHS that could result in a significant effect.
- 7.10.6 Of these, three proposed development sites presently have no assessments of Historic Environment impacts available. These comprise:
- Mynydd Maen, proposal for 15 wind turbines with a maximum tip height of 149.9m located c.2.4km to the south of the Site;
 - Manmoel Wind Farm, proposal for 5 turbines with a maximum tip height of 180m located c.5.5km to the north-west of the Site; and
 - Trecelyn Wind Farm, proposal for 5 wind turbines with a maximum tip height of 145m located c.2.2km to the south of the Site.
- 7.10.7 In addition, a proposed development site is located at Carn-y-Cefn for 8 wind turbines with a maximum tip height of 180m located c.3km to the north-west of the Site. A Historic Environment ES Chapter has been written for this development. With regard to the BILWHS it assesses a Minor Adverse effect that is not significant.
- 7.10.8 The assessment also considered the Twyn Hywel wind farm development, which is for 20 turbines, but which is located c.12.5km to the south-west of the site and c.18 kms from the BILWHS. This proposed development was discounted as it is unlikely that the turbines would be visible from the BILWHS at that distance.
- 7.10.9 The three wind turbine sites, Mynydd Maen, Manmoel and Trecelyn are all further from the BILWHS than the Proposed Development. However, in common with both the Proposed Development and the Carn-y-Cefn development, it is likely that they would be visible as distant turbines in views from the higher parts of the BILWHS such as The Bloreng, Coity Mountain and Mynydd y Garn-fawr. In this respect they would, as for the Proposed Development and the Carn-y-Cefn development, introduce tall, moving modern elements into the view out across the wider upland landscape to the west, south-west and south from the BILWHS.
- 7.10.10 Whilst these turbines would be distant, they would form a new element in the landscape and would change the character of the background in views from certain elevated parts of the BILWHS, reducing the openness of the upland landscape, creating a visual distraction and thus affecting the relationship between the BILWHS and the wider landscape setting. This would result in an impact upon its Aesthetic and Visual Value.
- 7.10.11 This impact would be similar but on a lesser scale (as the turbines would be more distant) to the impact assessed within the HIA at **Appendix 7B**. However, inasmuch as an effect would occur as for the Proposed Development, the majority of the BILWHS would be unaffected, including the valley bottom area in which its OUV is concentrated. For the Carn-y-Cefn development, a Minor adverse effect is assessed in its associated ES Chapter (as a result of a Negligible Magnitude of Change). It is likely that for the other three wind turbine sites these would also result in Negligible Magnitudes of Change resulting in Minor adverse effects on the OUV of the WHS, although they should be subject to a robust assessment process in their own right before a firm conclusion can be made.

- 7.10.12 As such, should all of the wind turbine developments listed above, including the Proposed Development, be constructed, the BILWHS would receive five separate Minor effects because all of the turbines would be present in the same viewscape. The combined effect could be considered to represent a single impact of greater magnitude such as a Small magnitude of change. With reference to **Table 7.11**, a change to a historic asset of Very High sensitivity would result in a Major or Moderate adverse effect.
- 7.10.13 However, with regard to the statement at Note 1 in LA 106 (DMRB, 2020) that *'the effect on the Historic Environment resource is not significant when the impact does not substantially diminish the heritage interest of the Historic Environment resource'* it should be considered that none of the wind turbine developments would result in any change to the core areas of the BILWHS which are concentrated in the valley at Blaenavon and which contain the majority of the OUV.
- 7.10.14 As such its arguable that a significant effect cannot occur through the development of the distant land around the BILWHS which would only ever have a peripheral effect on the heritage value of the BILWHS affecting only its setting as perceived from the upland areas of the BILWHS resulting in an impact only on its Aesthetic and Visual value and on none of its other values or attributes. As such, an overall cumulative effect of **Moderate** adverse might be more appropriate as, based on professional judgement, this effect would not then be considered significant.

Scheduled monument: Cwmybyrgwm Colliery (MM163: 2396) (including Grade II listed building Chimney to Cwmybyrgwm Colliery): High sensitivity

- 7.10.15 No effects are assessed to the scheduled monument from the proposals considered. It is not anticipated that the wind turbine sites noted above that have not been assessed would have any effect on this asset, as it is located on the far side of Mynydd Llanhilleth from their locations. As such there would be no cumulative effect on this historic asset.

Listed building: St Illtyd's Church (Grade II*; Cadw Ref. 1866): High sensitivity

- 7.10.16 The Historic Environment ES Chapter submitted with the Carn-y-Cefn proposal assessed a Minor adverse effect to the Grade II* listed church. It is possible that other adverse effects might be assessed for the Mynydd Maen and Trecelyn wind turbine developments, as at least some of these turbines would probably be visible to the south of the church where they are located c.3-4km away, albeit that such a distance they would not be especially prominent or intrude heavily into the designated asset's wider setting.
- 7.10.17 As such, in combination with the Minor adverse effect assessed from the Proposed Development, the church would be subject to a series of Minor effects should all of the turbines be constructed. It is not considered that this effect should be combined into a higher magnitude impact as none of the turbines would be especially close to the church and it would still be appreciable with its present local degree of prominence and within its churchyard and wider village setting. As such there is no reason why the church would receive a significant or potentially significant effect from wind turbine development in the wider landscape whereby the nearest turbine to it would be 1.4km to the east and thus not heavily imposing into the asset's setting.
- 7.10.18 It is noteworthy that a Historic Environment Mitigation Plan²² was compiled in respect of the mitigation of Historic Environment impacts associated with the Carn y Cefn development. This plan includes provision for an interpretation board that will include information about St Illtyd's church and the nearby Castle Mound. These provisions offset significant effects identified from the Carn Y Cefn development and would also achieve a

²² Wood, 2022.

degree of mitigation against effects from the cumulative effect of wider wind turbine development in the vicinity of the church, including that from the Proposed Development.

Registered Park and Garden: Grade II* Pontypool Park (PGW (Gt) 26): **High** sensitivity

- 7.10.19 No effects are assessed to the registered park and garden from the proposals considered. It is possible that the Mynydd Maen development, located on a prominent hill c.3km to the south-west of the park, would result in a similar degree of visibility from the park as for the Proposed Development, but it is not anticipated that the other wind turbine sites noted above that have not been assessed would have any effect on this asset as it is located on the far side of Mynydd Llanhilleth from their locations.
- 7.10.20 As such, there may be a cumulative effect in combination with the Mynydd Maen wind turbine development, but at present the magnitude of this impact is not fully assessed. In common with the Proposed Development, such an effect would probably be Minor, and the park would receive two Minor effects should both developments be constructed. However, with no assessment available for the Mynydd Maen development, this is entirely speculative and there is no reason why the two effects would be of such magnitude that they would combine to create a greater effect that might then be significant.

Listed building: Hafod-arthen (Grade II; Cadw Ref. 1867): **Medium** sensitivity

- 7.10.21 No effects are assessed to the listed building from the proposals considered. As for the Church of St Illtyd, it is possible that other adverse effects might be assessed for the Mynydd Maen and Trecelyn wind turbine developments, as at least some of these turbines would probably be visible to the south of the farmhouse where they are located c.3-4km from it, albeit that such a distance they would not be especially prominent or intrude heavily into the asset's setting.
- 7.10.22 As such, in combination with the Minor adverse effect assessed from the Proposed Development, the farmhouse may be subject to a series of Minor effects should all of the turbines be constructed. It is not considered that this effect should be combined into a higher magnitude impact, as none of the turbines would be especially close to the farmhouse and it would still be appreciable with its present local degree of prominence and within its setting adjacent to functionally and historically associated farmland.
- 7.10.23 As such, there is no reason why the farmhouse would receive a significant or potentially significant effect from wind turbine development in the wider landscape whereby the nearest turbine to it would be 1.3km to the east and thus not heavily imposing into the asset's setting.

Non-designated historic assets (buildings and historic landscapes)

- 7.10.24 None of the non-designated historic assets assessed as receiving an impact from the Proposed Development are assessed as receiving an impact from any of the other development proposals considered.
- 7.10.25 In respect of the non-assessed wind turbine projects, the assets are all located in relatively close proximity to the Site and the Proposed Development would be much more prominent and have a much more **profound** impact on their settings than any more distant wind turbine development projects. The presence of other, distant turbines in their wider settings would have little relevance to their heritage value, especially given the impact assessed from the much closer turbines of the Proposed Development. As such, no cumulative effects are assessed for any of these assets.

7.11 Significance conclusions

- 7.11.1 A summary of the results of the Historic Environment assessment is provided in **Table 7.12 below**:

Table 7.12 Summary of significance of effects

Receptor and summary of predicted effects	Sensitivity/ value of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale
Blaenavon Industrial Landscape World Heritage Site (BILWHS) – change to the wider setting	Very High	Negligible	Minor	Change to Aesthetic and Visual value due to imposition of turbines into views but no effects to attributes and values that comprises its overall OUV.
Scheduled monument: Cwmybyrgwm Colliery (MM163: 2396) (including Grade II listed building Chimney to Cwmybyrgwm Colliery) – change to the setting of monument	High	Small	Minor	Change to wider setting resulting in presence of turbines in views to the monument from the north-east diminishing the prominence of its chimney but otherwise its value is unaffected.
Scheduled monument: St Illtyd’s Castle Mound (MM141: 2381) – change to the wider setting of monument	High	No Effect	Neutral	Change to the asset’s wider setting but not such that it would affect its heritage value.
Listed building: St Illtyd’s Church (Grade II*; Cadw Ref. 1866) - change to the setting of building	High	Small	Minor	Change to the asset’s wider setting such that modern forms would be present in views of the church.
Registered Park and Garden: Grade II* Pontypool Park (PGW (Gt) 26) - change to the setting of registered park and garden	High	Small	Minor	Presence of turbines in specific views from certain elevated locations in the part but otherwise little change to its setting
Blaenavon Landscape of Outstanding Historic interest – change to the wider setting of the BLOHI	Medium	No Effect	Neutral	Change to the wider setting of the BLOHI but not such that its landscape character is diminished

Receptor and summary of predicted effects	Sensitivity/ value of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale
Listed building: Hafod-arthen (Grade II; Cadw Ref. 1867) - change to the setting of the building	Medium	Small	Minor	Turbines would be visible in background in views to the house but would not diminish the experience of the house in relation to its functionality associated setting of farmland and outbuildings.
Listed building: Ty-Ilwyd (Grade II; Cadw Ref. 22672)- change to the setting of the building	Medium	No Change	Neutral	Turbines would be screened from the building due to adjacent trees.
Non-designated historic building: Gilfach Wen Farm and Barn (GGAT06399g) - change to the setting of the building	Low	Medium	Minor	Introduction of large moving modern development into the landscape in views to the house
Non-designated historic building: Ty-Dafydd (GGAT06401g) - change to the setting of the building	Low	Medium	Minor	Introduction of large moving modern development into the landscape in views to the house

Receptor and summary of predicted effects	Sensitivity/ value of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale
Non-designated historic building: Blaen Cyffin (GGAT04910g- change to the setting of the building)	Low	Negligible	Neutral	Turbines in wider setting of house but distant from it and at least partially screened by trees.
Non-designated historic building: Maes-y-Cnyw Farm (GGAT02093g) - change to the setting of the building	Low	Small	Minor	Turbines in wider setting of house but distant from it and at least partially screened by trees.
Non-designated historic building: Blaen-y-cwm (GGAT04914g) - change to the setting of the building	Low	No Change	Neutral	Turbines would be in wider setting of the asset but would have no change to aspects of its setting that contribute to its significance
Non-designated historic building: Gelli-Deg (GGAT04917g) - change to the setting of the building	Low	Medium	Minor	Introduction of large moving modern development into the landscape in views to the house
Historic landscape: Cwm Du field – Construction phase impacts	Low	Medium	Minor	Loss of walls and boundaries as well as re-surfacing of tracks
Operation Phase impacts	Low	Large	Moderate (not significant)	Turbines and infrastructure would cause considerable change to the valley head landscape
Historic landscape: Cwm Cynw– Construction phase impacts	Low	Small	Minor	Resurfacing of existing tracks

Receptor and summary of predicted effects	Sensitivity/ value of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale
Operation Phase impacts	Low	Large	Minor	Turbine would be very prominent and alter character of the landscape area but would not result in the loss of any historic features
Historic landscape: Craig Du field – Construction phase impacts	Low	Medium	Minor	Loss of historic hedgerows and resurfacing of tracks
Operation Phase impacts	Low	Large	Moderate (not significant)	Turbine would result in loss of historic hedgerows and dominant the historic landscape area
Historic landscape: Blaen Nant y Caws – Operation phase impacts	Low	Large	Minor	Turbines would be highly prominent in views across the landscape character area but would not actually be located within it
Sheep pens at Pen Tranch (GGAT06902g: NMRW 421322)	Low	Large	Moderate (not significant)	Total loss of stone walled pens in development footprint
Unrecorded archaeological remains -Construction phase impacts	Unlikely to be greater than Low	Large	Moderate (not significant)	Total loss of unrecorded remains in development footprint

1. The sensitivity/value of a receptor is defined using the criteria set out in **Section 1.8** and is defined as [negligible, low, medium, high, very high].
2. The magnitude of change on a receptor resulting from activities relating to the development is defined using the criteria set out in **Section 1.8** and is defined as [negligible, minor, moderate, major].
3. The significance of the environmental effects is based on the combination of the sensitivity/value of a receptor and the magnitude of change and is expressed as major (significant), moderate (potentially significant) or minor/negligible (not significant), subject to the evaluation methodology outlined in **Section 1.8**.

7.12 Additional measures

- 7.12.1 The assessment set out above and through consultation with GGAT has concluded that it will be necessary to implement additional measures. These have been identified and would be in addition to those embedded measures outlined and assessed in **Section 7.6**. **Table 7.13** outlines how these additional measures will influence the Historic Environment assessment.

Table 7.13 Summary of the additional environmental measures

Receptor	Potential changes and effects	Additional measures	Compliance mechanism
Construction			
Pen Tranch sheep pens	Loss of walls to development impact	Archaeological recording in line with appropriate ClfA guidelines prior to and during development groundworks i.e. a recording exercise of the walls prior to their loss and when the walls are removed.	DNS condition as dictated by GGAT
Historic landscape Cwm Du	Loss of walls to development impact	Archaeological recording in line with appropriate ClfA guidelines prior to and during development groundworks i.e. a recording exercise of the walls prior to their loss and when the walls are removed.	DNS condition as dictated by GGAT
Historic Landscape Craig Du field	Loss of historic field boundaries to development impact	Archaeological recording in line with appropriate ClfA guidelines prior to and during development groundworks i.e. a recording exercise of the boundaries prior to their loss and when the boundaries are removed.	DNS condition as dictated by GGAT
Unrecorded archaeology	Potential impact on unrecorded archaeology in the footprint of the Proposed Development where such potential exists	Archaeological recording in line with appropriate ClfA guidelines during initial topsoil strip as part of development groundworks i.e. an archaeological watching brief on the initial topsoil strip in the footprint of development including for new tracks and any invasive improvements to tracks.	DNS condition as dictated by GGAT

7.13 Residual effects assessment

Construction Phase

- 7.13.1 Following the Additional measures as set out in **Section 7.12** above, the assets that would be subject to archaeological recording will receive a reduction in the effects assessed. This will result in the following residual effects:

- Pen Tranch sheep pens – **Negligible** effect that is not significant;
- Historic landscape Cwm Du – **Negligible** effect that is not significant;
- Historic Landscape Craig Du field - **Negligible** effect that is not significant; and
- Unrecorded archaeology - **Minor** effect that is not significant.