

## 13 CULTURAL HERITAGE

### 13.1 INTRODUCTION

This chapter assesses the impacts of the Development on the Cultural Heritage resource. The Development refers to all elements of the application for the construction of Tullaghmore Wind Farm (**Chapter 2: Development Description**). Where negative effects are predicted, the chapter identifies appropriate mitigation strategies. The assessment considers the potential effects during the following phases of the Development:

- Construction of the Development
- Operation of the Development
- Decommissioning of the Development

The term 'Cultural Heritage' encompasses heritage assets relevant to both the tangible resource (including archaeology and architectural heritage); and non-tangible resources (including historical associations, folklore, tradition, language and placenames). The recorded and potential cultural heritage resource within lands encompassing the proposed wind farm site (the Site) and the surrounding landscape was reviewed in order to compile a comprehensive cultural heritage baseline for the assessment. The proposed grid connection route and work areas to facilitate the delivery of turbines to the Site were also assessed.

Common acronyms used throughout this EIAR can be found in **Appendix 1.4**. This chapter of the EIAR is supported by Figures provided in **Volume III** and by the following Appendix documents provided in **Volume IV** of this EIAR:

- **Appendix 13.1 Plates**

#### 13.1.1 Statement of Authority

The chapter was prepared by Tony Cummins and Padraig Dunne of John Cronin and Associates.

Mr Cummins holds B.A. and M.A. degrees in archaeology (University College Cork (UCC) 1992/1994) and has twenty-seven years industry experience. He is the principal author of the chapter and carried out desktop research, field surveys and impact assessments during its compilation.

Mr Dunne also holds B.A. and M.A. degrees in archaeology (UCC 2009/2015) and has eleven years industry experience. He contributed to the field surveys of the Site carried out

as part of the assessment. Both individuals have been approved as licence eligible archaeologists by the National Monuments Service and have extensive experience in the preparation of archaeological, architectural and cultural heritage assessments for renewable energy projects.

### 13.1.2 Assessment Structure

The desktop study and the field surveys described in **Section 13.3** together with the other assessments will allow the Planning Authority to carry out an assessment of the Development from a Cultural Heritage perspective. In line with the revised EIA Directive as amended and current EPA guidelines the chapter provides considerations of effects based on the following:

- Assessment of cultural heritage value and sensitivity
- Assessment of the magnitude of cultural heritage effects within the Study Area
- Assessment of the significance of cultural heritage impacts
- Assessment of cumulative cultural heritage impacts

## 13.2 ASSESSMENT METHODOLOGY AND SIGNIFICANCE CRITERIA

### 13.2.1 Definition of Study Area

The study area reviewed for the assessment comprised the area within the Redline Boundary and the surrounding lands extending for 2km in all directions beyond the boundary as well as a 100m wide area centred on the grid connection route and work areas required to facilitate the delivery of turbines to the Site (shown in **Figures 13.1, 13.9 and 13.12**). The extent of the 2km study area around the Site was chosen in order to compile a baseline context for the known cultural heritage resource within the Site and its environs as well as to assess potential direct and indirect impacts on the locations and settings of known cultural heritage assets within this area. The extent of the 100m study area centred on the grid connection route and haul route work areas was chosen in order to appraise if there are any known elements of the cultural resource within their localised footprint or close environs, including potential sub-surface elements which may be susceptible to direct or indirect impacts. In addition, the wider landscape extending for 10km in all directions from the Redline Boundary was reviewed to determine the presence of any nationally significant cultural heritage assets with heightened visual sensitivities, such as National Monuments in State Care and World Heritage sites (including tentative sites). This also included a review of other cultural heritage assets with visual attributes that extend beyond their immediate settings within this area, such as archaeological monuments with ritual visual alignments across the wider landscape (e.g., stone circles, stone rows and megalithic tombs) as well

as intangible assets within the area including Gaeltacht areas. The extent of the 10km area was chosen in order to appraise if the wider landscape contains individual or groupings of such visually sensitive monuments that may be susceptible to potential high-to-medium magnitudes of indirect impacts on their wider settings or alignments.

A review of the assessment of the significance of visual impacts on publicly accessible cultural heritage receptors within 20km of the Site as presented in the Landscape and Visual Amenity Assessment chapter was also carried out as part of the assessment (see **Chapter 11**).

### 13.2.2 Assessment Methodology

The methodology used for this assessment is based on Environmental Protection Agency (EPA 2022) *Guidelines for Information to be Contained in EIAR*. The chapter has been compiled to comply with the requirements of Directive 2011/92/EU as amended by Directive 2014/52/EU, and the Planning and Development Act, 2000 (as amended) and Planning and Development Regulations, 2001 (as amended).

### 13.2.3 Relevant Legislation and Guidance

The tangible elements of the cultural heritage resource can be divided into the archaeological resource comprising sites and monuments dating from the prehistoric period to the post-medieval period and the architectural heritage resource, encompassing standing structures and sites of cultural importance often dating to the post-medieval and modern periods. In addition, assets such as local placenames, language, folklore and traditions are considered part of the intangible cultural heritage resource. The management and protection of the cultural heritage resource in Ireland is achieved through a framework of international conventions and national laws and policies. This framework was established in accordance with the provisions of the 'European Convention on the Protection of the Archaeological Heritage' (the Valletta Convention) and the 'European Convention on the Protection of Architectural Heritage' (Grenada Convention). Both of these conventions were ratified by the Republic of Ireland in 1997. While there is no current national legislation providing legal protection for the Irish intangible heritage resource it is noted that the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage, 2003, which seeks to safeguard and promote awareness of this element of cultural heritage, was ratified by Ireland in 2015.

The legislation and guidelines that are relevant to this assessment comprise the following:

- National Monuments Act 1930 (as amended)

- Heritage Act (1995)
- National Cultural Institutions Act (1997)
- Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act (1999)
- Planning and Development Act (2000) as amended
- Department of Arts, Heritage and Gaeltacht (2011) *Architectural Heritage Protection: Guidelines for Planning Authorities*
- Department of Arts, Heritage, Gaeltacht and the Islands (1999) *Framework and Principles for the Protection of Archaeological Heritage*

### **13.2.3.1 Archaeological Heritage**

The National Monuments Service is currently based in the Department of Housing, Local Government and Heritage and is responsible for the preservation, protection and promotion of Ireland's archaeological heritage. The National Monuments Acts 1930 (and amendments), the Heritage Act 1995 and relevant provisions of the National Cultural Institutions Act 1997 are the primary means of ensuring the satisfactory protection of archaeological remains. There are a number of mechanisms under the National Monuments Acts that are applied to secure the protection of archaeological monuments. These include the designation of National Monument status, the Register of Historic Monuments, the Record of Monuments and Places and the Sites and Monuments Record as well as the placing of Preservation Orders and Temporary Preservation Orders on endangered sites. A National Monument is described as 'a monument or the remains of a monument, the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic or archaeological interest attaching thereto' (Section 2, National Monument Act, 1930). There are no National Monuments in State Care located within or adjacent to the wind farm site, the grid connection route or turbine delivery work areas. The locations of two examples within 10km of the Site are detailed in **Section 13.4.7** of this chapter.

The Record of Monuments and Places was established under Section 12(1) of the National Monuments (Amendment) Act, 1994 and was based on the earlier Sites and Monuments Record and Register of Historic Monuments. These records comprise lists and maps of all known archaeological monuments and places for each county in the State. The National Monuments Service maintains an online Historic Environment Viewer which comprises an interactive map/search facility that provide access to current records stored on its national database of sites and monuments. The Viewer includes designated areas around recorded monuments known as 'zones of notification' which do not comprise buffer zones but are

intended to indicate areas of archaeological potential within their environs<sup>1</sup>. All archaeological sites listed in the Record of Monuments and Places receive statutory protection under the National Monuments Act (1994 amendment) and no works can be undertaken at their locations without providing two months advance notice to the National Monuments Service. The known archaeological sites located within the environs of the Development are detailed in **Section 13.3**. The potential for the presence of hitherto unrecorded, sub-surface archaeological features within proposed construction areas is also considered.

### **13.2.3.2 Architectural Heritage**

Protection of architectural or built heritage is provided for through a range of legal instruments that include the Heritage Act 1995, the Architectural Heritage (National Inventory) and National Monuments (Misc. Provisions) Act 1999, and the Planning and Development Act 2000. Section 2.1 of the Heritage Act 1995, describes architectural heritage as follows:

*All structures, buildings, traditional and designed, and groups of buildings including streetscapes and urban vistas, which are of historical, archaeological, artistic, engineering, scientific, social or technical interest, together with their setting, attendant grounds, fixtures, fittings and contents, and, without prejudice to the generality of the foregoing, includes railways and related buildings and structures and any place comprising the remains or traces of any such railway, building or structure.*

The Planning and Development Act 2000 requires Planning Authorities to maintain a 'Record of Protected Structures' of buildings and other structures that are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. All structures listed for protection in current Development Plans, are designated Protected Structures and planning permission is required for any works to such structures that would affect their character. A protected structure also includes the lands and other structures within its curtilage. While the notion of curtilage is not defined by legislation, the *Architectural Heritage Protection Guidelines for Local Authorities* (Department of Arts, Heritage and the Gaeltacht 2011), describes it as the parcel of land immediately associated with a structure and which is (or was) in use for the purposes of the structure. The current Record of Protected Structures for County Galway is published in the *County Galway Development Plan 2022-2028*. The Planning and Development Act 2000 also provides for

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<sup>1</sup> <https://www.archaeology.ie/sites/default/files/media/publications/archaeology-planning-process-pl13.pdf>

the inclusion of objectives for preserving the character of places, areas, groups of structures or townscapes of special interest to be designated as Architectural Conservation Areas.

The National Inventory of Architectural Heritage and Historic Gardens and Designed Landscapes comprises a non-statutory record of a representative sample of post 1700 architectural heritage structures and associated lands within the State. While inclusion in the inventory does not provide statutory protection to listed structures or lands, it does provide an indication of their architectural heritage value and is intended to advise local authorities on the compilation of their Records of Protected Structures.

There are no Protected Structures or buildings and historic gardens listed in the National Inventory of Architectural Heritage located within the Site or its close environs. There are a number of examples located within 2km of the Site as well as examples in proximity to the grid connection and turbine route work areas and these are detailed in **Section 13.3** of this chapter.

#### 13.2.4 Galway County Development Plan 2022-2028

The *County Galway Development Plan 2022-2028*<sup>2</sup> includes a number of policy objectives in relation to the protection of the cultural heritage resource within the county. In relation to the archaeological resource, these include policy objectives such as the protection of recorded archaeological sites and their settings and visual amenity (Policy Objective ARC 4). The Plan also includes an objective that developments in the immediate vicinity of Recorded Monuments should be sensitively designed and sited in order to not detract from the monument or its visual amenity (Policy Objective ARC 9).

The Development Plan includes a number of policy objectives in relation to the protection of the architectural heritage resource, and its associated attributes, within the county including the protection of Protected Structures (Policy Objective AH 2), structures listed in the National Inventory of Architectural Heritage (Policy Objective AH 3), Architectural Conservation Areas (Policy Objective AH 4) and vernacular heritage (Policy Objective AH 6), local names (Policy Objective AH 7), designed landscapes (Policy Objective AH 10) and traditional building skills (Policy AH 13).

The Development Plan also contains a number of policy objectives in relation to the protection of the cultural heritage resource within the county including the protection and

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<sup>2</sup> <https://www.galway.ie/en/services/planning/planspolicy/cdp28/>

promotion of cultural heritage assets and the intangible cultural heritage resource (Policy Objective CUH 1), special places of historical interest (Policy Objective CUH 2) and the promotion and protection of local placenames (Policy Objective CUH 3). While the Site is not located within the County Galway Gaeltacht area, sections of the grid connection and turbine delivery routes do extend into the boundary of this area. The Development Plan includes a policy objective to protect the linguistic and cultural heritage of the Gaeltacht and to promote the Irish language (Policy Objective CUH 4). Additional policy objectives in relation to the Galway Gaeltacht are presented in Chapter 13 of the Development Plan.

A section of the turbine delivery route also extends through the Galway City Council administrative area and relevant sections of the *Galway City Development Plan 2017-2023* were also reviewed, including the locations of Protected Structures and Architectural Conservation Areas within the environs of proposed work areas to facilitate this section of the route.

### 13.2.5 Desktop Study

The assessment presents the results of a desktop study of relevant published sources and datasets undertaken in order to identify all recorded and potential archaeological, architectural and other cultural heritage sites/features/areas within the study area for the Site, grid connection route and turbine delivery work areas. The principal sources reviewed for the assessment of the recorded archaeological resource were the Sites and Monuments Record and the Record of Monuments and Places. The relevant Records of Protected Structures and the National Inventory of Architectural Heritage were consulted for assessing the locations of designated elements of the architectural heritage resource.

Other sources consulted as part of the desktop study included the following:

*Archaeological Inventory of County Galway, Vol. 1: West Galway*: This publication presents summary descriptions of the recorded archaeological sites within this area of the county and relevant entries are included within the chapter. In addition, the current national online database resources pertaining to recorded sites were reviewed on the National Monuments Service's Historical Environment Viewer <sup>3</sup>.

*Heritage Council of Ireland Map Viewer*: This online mapping source<sup>4</sup> collates various cultural heritage datasets provided by, among others, the National Monuments Service, the National Museum of Ireland, local authorities, the Royal Academy of Ireland and the Office of Public Works.

<sup>3</sup> [www.archaeology.ie](http://www.archaeology.ie) accessed in August 2022

<sup>4</sup> [www.heritagemaps.ie](http://www.heritagemaps.ie) accessed in August 2022

*Topographical Files of the National Museum of Ireland* – These files comprise paper and digital records of known information on Irish artefacts, including their discovery locations. The file archive is stored in the museum premises in Kildare Street, Dublin and was inspected as part of the assessment.

*Database of Irish Excavation Reports*: This online database contains summary accounts of archaeological site investigations carried out in Ireland (North and South) from 1970 to present<sup>5</sup>.

*Literary Sources*: Various published sources were consulted in order to assess the archaeological, historical, architectural heritage and folklore record of the study area.

*Cartographic Sources*: A review of available historic cartographic sources was undertaken, and these included the 17th-century Down Survey and various map editions published by the Ordnance Survey from the mid-19th century onward. These sources can indicate the presence of past settlement patterns, including features of archaeological and architectural heritage significance that no longer have any surface expression. Relevant extracts from the reviewed cartographic sources are provided in **Volume III**.

*Aerial, Satellite and LiDAR imagery*: A review of available imagery of the study area was undertaken in order to review the extent of modern interventions and to ascertain if any traces of unrecorded archaeological sites were visible within proposed development areas.

*Irish National Folklore Collection*: A review was undertaken of transcribed material from the National Folklore Collection archive which has been digitised and published online at [www.duchas.ie](http://www.duchas.ie).

*UNESCO World Heritage Sites and Tentative List*: There are two designated World Heritage sites in Ireland (Brú na Bóinne, Co. Meath and Sceilg Mhichíl, Co. Kerry) and a number of other significant examples have been included in a Tentative List (2022) that has been put forward by Ireland for inclusion<sup>6</sup>. None of these designated or tentative sites are located within County Galway and the nearest site on the current tentative list (Rathcroghan, Co. Roscommon) is located c.90km to the northeast.

### 13.2.6 Field Survey

Proposed construction locations within the Site were subjected to field walking surveys and inspections of the grid connection route and work areas along the haul route where ground works are required were also undertaken. These surveys were carried out in August 2020 and July 2022. The surveyed lands were assessed in terms of historic landscape, existing land use, vegetation cover and the potential for the presence and survival of unrecorded archaeological and undesignated architectural heritage sites or features. The results of the

<sup>5</sup> [www.excavations.ie](http://www.excavations.ie) accessed in August 2022

<sup>6</sup> [Ministers announce new World Heritage Tentative List for Ireland | Tentative List | World Heritage | World Heritage Ireland](#)

field surveys are described within the chapter while annotated extracts from the photographic record are provided in **Appendix 13.1**. The cultural heritage constraints within the sections of the study area outside the boundary of the Development are located within private properties not accessible during field surveys. These constraints were assessed based on a combination of reviews of their classifications and conditions of preservation as described in published inventory descriptions as well as reviews of their locations on consulted historic mapping and modern aerial/satellite imagery.

### 13.2.7 Consultation

A response to a scoping request for the Development was issued by the Development Applications Unit on 19/11/21 and contained no content in relation to the cultural heritage resource.

### 13.2.8 Assessment of Impacts Methodology

#### 13.2.8.1 Level of Impact

The following provides a summary of the criteria used to assess impacts in order to outline the methodology specifically applied to the cultural heritage resource which complies with relevant EPA and ICOMOS guidelines (see **Section 13.2**).

#### *Duration of Effect*

The duration of effects is assessed based on the following criteria:

- Momentary (seconds to minutes)
- Brief < 1 day
- Temporary <1 year
- Short-term 1-7 years
- Medium Term 7-15 years
- Long Term 15-60 years
- Permanent > 60 years
- Reversible: Effects that can be undone through remediation or restoration

#### *Quality of Effect*

The quality of an effect on the cultural heritage resource can be positive, neutral or negative:

- Positive Effect – a change which improves the quality of the cultural heritage environment, (e.g., increasing amenity value of a site in terms of managed access, signage, presentation or high-quality conservation/restoration and re-use of an otherwise vulnerable derelict structure)

- Neutral Effect – no change or effects that are imperceptible, within the normal bounds of variation for the cultural heritage environment
- Negative Effect – a change which reduces the quality of the cultural heritage resource, (e.g., visual intrusion on the setting of an asset, physical intrusion on features/setting of a site)

#### *Type of Effect*

The type of effect on the cultural heritage resource can be direct, indirect or no predicted impact.

- Direct Impact – where a cultural heritage site is physically located within the footprint of the EIA Development, which will result in its complete or partial removal.
- Indirect Impact – where a cultural heritage site or its setting in the landscape is located within the environs of the EIA Development.
- No predicted impact – where the EIA Development will not adversely or positively affect a cultural heritage site.

#### *Magnitude of Effect*

This is based on the degree of change, incorporating any mitigation measures, on a cultural heritage asset and can be negative or positive. The magnitude is ranked without regard to the value of the asset according to the following scale: High; Medium; Low and Negligible and has been informed by criteria published in the International Council on Monuments and Sites *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties* (ICOMOS 2011) (**Table 13.1**).

#### *Value assessment criteria*

The evaluation of the values of cultural heritage asset used for the purposes of assessment is not intended as definitive, but rather an indicator which contributes to a wider judgment based the individual circumstances of each asset. The value of all known or potential assets that may be affected by development are ranked according to the following scale: Very High; High; Medium; Low and Negligible. The factors for assessing the value of cultural heritage assets provided in **Table 13.2** have regard to the ICOMOS *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties*<sup>7</sup> (ICOMOS 2011, 14-17). This guidance is intended as indicative and is used in combination with a consideration of the condition/preservation; documentary/historical significance, group value, rarity, visibility in the landscape, fragility/vulnerability and amenity value of the cultural heritage assets on a

<sup>7</sup> [https://www.iccom.org/sites/default/files/2018-07/icomos\\_guidance\\_on\\_heritage\\_impact\\_assessments\\_for\\_cultural\\_world\\_heritage\\_properties.pdf](https://www.iccom.org/sites/default/files/2018-07/icomos_guidance_on_heritage_impact_assessments_for_cultural_world_heritage_properties.pdf)

case-by-case basis. The values assigned to identified assets within the study areas were determined following the completion of the desktop research combined with subsequent site inspections and are presented in **Section 13.4** of this chapter.

#### *Significance of Effects*

The significance of effect can be described as Profound, Very Significant, Significant, Moderate, Slight, Not Significant or Imperceptible (**Table 13.3**) and is assigned based on the combined evaluation of effect magnitude and asset significance (**Table 13.4**).

**Table 13.1: Magnitude of Impact Assessment Indicators for Cultural Heritage Assets**

Indicative factors for assessing the Magnitude of Impact on the Cultural Heritage Asset (after ICOMOS Guidelines 2011)	
High	<p>Most or all key archaeological or architectural materials affected such that the resource is totally altered</p> <p>Comprehensive changes to setting</p> <p>Changes to most or all key historic landscape elements, parcels or components; extreme visual effects; fundamental changes to use or access; resulting in total change to historic landscape character</p> <p>Major changes to area that affect Intangible Cultural Heritage activities or associations or visual links and cultural appreciation</p>
Medium	<p>Changes to many key archaeological or historic building materials/elements such that the resource is clearly/significantly modified</p> <p>Considerable changes to setting that affect the character of the archaeological asset.</p> <p>Changes to the setting of a historic building, such that it is significantly modified</p> <p>Change to many key historic landscape elements, parcels or components, visual change to many key aspects of the historic landscape, considerable changes to use or access, resulting in moderate changes to historic landscape character</p> <p>Considerable changes to area that affect the Intangible Cultural Heritage activities or associations or visual links and cultural appreciation.</p>
Low	<p>Changes to key archaeological materials/historic building elements, such that the resource is slightly altered/slightly different</p> <p>Slight changes to setting of an archaeological monument</p> <p>Change to setting of a historic building, such that it is noticeably changed</p> <p>Change to few key historic landscape elements, parcels or components; slight visual changes to few key aspects of historic landscape; slight changes to use or access; resulting in limited change to historic landscape character</p> <p>Changes to area that affect the Intangible Cultural Heritage activities or associations or visual links and cultural appreciation</p>
Negligible	<p>Very minor changes to key archaeological materials or setting</p> <p>Slight changes to historic building elements or setting that hardly affect it</p> <p>Very minor changes to key historic landscape elements, parcels or components; virtually unchanged visual effects; very slight changes to use or access; resulting in very small change to historic landscape character</p> <p>Very minor changes to area that affect the Intangible Cultural Heritage activities or associations or visual links and cultural appreciation</p>

**Table 13.2: Value Indicators for Cultural Heritage Assets**

<b>Indicative factors for assessing Value of Cultural Heritage Assets (after ICOMOS Guidelines 2011)</b>	
Very High	World Heritage Sites (including Tentative List properties) Sites, buildings or landscapes of acknowledged international importance Intangible associations with individuals or innovations of global significance
High	Nationally designated sites, buildings and landscapes of significant quality, rarity, preservation and importance Undesignated assets of the quality and importance to be designated Assets that can contribute significantly to acknowledged national research objectives Archaeological Landscapes with significant group value Intangible associations with individuals or innovations of national significance
Medium	Designated or undesignated assets that can contribute significantly to regional research objectives, including buildings that can be shown to have exceptional qualities in their fabric or historical associations Conservation Areas and historic townscapes containing buildings that contribute significantly to its historic character Intangible associations with individuals or innovations of regional significance
Low	Assets compromised by poor preservation and/or poor survival of contextual associations Assets of limited value, but with potential to contribute to local research objectives Historic Townscape or built-up areas of limited historic integrity in their buildings and settings Intangible associations with individuals or innovations of local significance
Negligible	Assets with very little or no surviving archaeological interest Landscapes with little or no significant historical interest Buildings or urban areas of no architectural or historical note; buildings of an intrusive character
Unknown Potential	Assets whose importance has not been ascertained Buildings with some hidden (i.e., inaccessible) potential for historic significance

**Table 13.3: Significance of Effects (per EPA EIAR Guidelines 2022)**

<b>Significance</b>	<b>Description</b>
Imperceptible	An effect capable of measurement but without significant consequences
Not Significant	An effect which causes noticeable changes in the character of the environment but without significant consequences
Slight	An effect which causes noticeable changes in the character of the environment but without affecting its sensitivities
Moderate	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends
Significant	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment
Very Significant	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment
Profound	An effect which obliterates sensitive characteristics

**Table 13.4: Significance of Effects (per EPA EIAR Guidelines 2022)**

<b>Magnitude of Impact</b>	<b>High</b>	Not Significant/ Slight	Moderate/ Significant	Significant/ Very Significant	Very Significant/ Profound
	<b>Medium</b>	Not Significant	Slight	Moderate/ Significant	Significant/ Very significant
	<b>Low</b>	Not Significant/ Imperceptible	Slight/ Not Significant	Slight	Moderate
	<b>Negligible</b>	Imperceptible	Not Significant/ Imperceptible	Not Significant/ Slight	Slight
		<b>Negligible</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>
		<b>Value/Sensitivity of the Asset</b>			

### 13.3 BASELINE DESCRIPTION

#### 13.3.1 Introduction

The following sections presents summary details of the main periods within the Irish archaeological record with references to known archaeological sites and designated architectural heritage structures, as listed in the Record of Protected Structures and the National Inventory of Architectural Heritage, located within the study area around the Site, grid connection route and haul route work areas. Datasets have been interrogated and retrieved from current state and local authority sources and are considered accurate at the time of writing in August 2022. The published inventory entries of recorded archaeological sites and designated architectural heritage structures within the study area are presented within the following sections.

#### 13.3.2 The Site: Archaeological and Historical Background

Until the recent identification of Palaeolithic human butchery marks on a bear bone recovered from a cave site in County Clare, the earliest recorded evidence for human activity in Ireland dated to the Mesolithic period (7000–4000 BC) when groups of hunter-gatherers lived on the heavily wooded island. The archaeological record indicates that these mobile groups tended to favour coastal, lake and river shores locations which provided a transport resource and also provided elements of their varied diet. They did not construct any settlements or monuments that have left any above ground traces although their presence in an area can often be identified by scatters of worked flints in ploughed fields or sub-surface traces of their settlements revealed during earth-moving undertaken as part of development works. The Neolithic period (4000-2400 BC) began with the arrival of agriculture and its establishment as the principal form of economic subsistence, which resulted in more permanent settlement patterns. As a consequence of the more settled

nature of agrarian life, new site-types, such as substantial rectangular timber houses, field systems and various types of megalithic tombs, begin to appear in the archaeological record. There are no known archaeological sites dating to the Mesolithic or Neolithic periods located within the 2km study area around the Site. A review of the locations of Neolithic megalithic tombs, which may have ritual alignments across the wider landscape, within 10km of the Site revealed one example in this area. This comprises a monument listed as a 'megalithic structure' (GA053-005----), which is a classification used by the Archaeological Survey of Ireland to describe a structure of large stones of 'megalithic' proportions which, though comparable in certain respects with megalithic tombs, cannot be classified as any other known archaeological monument type. This monument is located within the townland of Lurgan or Shindilla at a distance of 1.94km to the south-west of the Redline Boundary (**Figure 13.1**). The Archaeological Survey of Ireland has not published a description of this monument on the Historic Environment Viewer, but a review of modern satellite imagery demonstrated that its location is now occupied by a forestry plantation.

Metalworking arrived in Ireland with the advent of the Bronze Age period (c. 2400–500 BC). This new technology introduced a new artefactual assemblage into the Irish archaeological record and this period was also associated with the construction of new monument types such as standing stones, stone rows, stone circles and fulachta fiadh. The development of new burial practices meant that the construction of funerary monuments such as cairns, barrows, boulder burials and tumuli or cists was a common practice during this period. The arrival of iron-working technology in Ireland saw the advent of the Iron Age (600 BC – 400 AD). Relatively little has been known about settlement patterns during this period until recent decades when the corpus of evidence has been greatly increased by the discovery of Iron Age sites during archaeological investigations undertaken as part of various development projects. A cairn site (GA039-010----) situated on the summit of Keeraunnageeragh is located c. 1.5km outside the eastern end of the Redline Boundary is of potential late prehistoric date although the origins of this type of monument cannot be ascertained without recourse to archaeological excavation (**Figure 13.1**). The cairn is depicted on historical OS maps which label it as Carn Seefin which is an anglicisation of *Suidhe Finn* (Finn's Seat) and is a reference to the mythical Finn Mac Cumail. A review of the wider landscape revealed that there are no other cairns located within upland areas in the environs of the Site and the example within the study area does not appear to form part of an intervisible group of similar monuments. The following Archaeological Survey of Ireland inventory description of this monument is published on the Historical Environment Viewer:

*Cairn site GA039-010----: Prominently situated on the summit of Keeraunnageeragh (1009 ft OD). An oval cairn of small granite stones (NE-SW c. 19.7m, H 3.2m) much disturbed on NE side and at centre where there is a depression. (Killanin 1947, 125; Killanin and Duignan 1967, 398).*

The review of recorded monuments within 10km of the Redline Boundary did not reveal the presence of any extant Bronze Age monuments with a potential visual alignment attribute which may relate to ritual aspects of its original function.

The early medieval period began with the introduction of Christianity to Ireland and continued until the arrival of the Anglo-Normans in the late 12<sup>th</sup> century (c. 400–1169 AD). While this period saw the emergence of the first phases of urbanisation around the larger monasteries and the Hiberno-Norse ports, the dominant settlement pattern continued to be rural-based and founded on an agricultural economy centred on enclosed farmsteads known as ringforts and their stone-built equivalents known as cashels. The early medieval church sites were often morphologically similar to ringforts but are often differentiated by the presence of features such as church buildings, graves, stone crosses and shrines. While there are no known early medieval sites located within the study area, examples within the wider landscape demonstrate the presence of farming communities within the region during this period.

The arrival of the Anglo-Normans in the late 12<sup>th</sup> century broadly marks the advent of the Irish high medieval period which continued to c.1400 and was followed by the late medieval period which extended to c.1550. These periods saw the continuing expansion of Irish urbanisation as many of the port cities developed into international trading centres and numerous villages and towns began to develop throughout the country, often within the environs of Anglo-Norman manorial centres which were defended by masonry castles. By the 15<sup>th</sup> century, the native Irish chieftains and lords began to construct tower-house castles within their own landholdings as centres of territorial control. There are no recorded late or high medieval monuments located within the study area.

The centuries following 1550 comprise the post-medieval period which continued into the middle of the 19<sup>th</sup> century and the period thereafter is often described as early modern. The early phase of the post-medieval period was a turbulent time in Ireland and saw a period of wars between the 1560s and 1603 with further conflict during the mid-17<sup>th</sup> century Cromwellian Wars which resulted in extensive dispossession of forfeited Gaelic lands. An agricultural boom in the late 18<sup>th</sup> and early 19<sup>th</sup> centuries saw a rise in prices for both Irish tillage and dairy produce which resulted in landlords investing in extensive land

improvement works within their holdings to increase productivity. This included widespread land drainage works and enclosure of open lands into field systems that survive to the present-day. The post-medieval period saw the development of high and low status stone houses throughout the Irish countryside and rural settlement clusters at this time typically consisted of single-storey thatched cottages with associated farm buildings while two-storey farmhouses became more common during the 19<sup>th</sup> century. The settlement pattern throughout much of the rural landscape was greatly affected by the Famine period and its aftermath in the middle of the 19<sup>th</sup> century which saw the depopulation of many areas.

The Civil Survey and Down Survey were compiled in the mid-17<sup>th</sup> century in order to establish records on lands to be forfeited to members of the Cromwellian army as payment for service. The province of Connaught was for the most part located outside the dispossessed lands and the surveys provide very little information on the townlands within the Site other than the names of landowners (**Table 13.5**). The Down Survey maps typically only depict larger settlements as well as other significant built features within the landscape such as castles, churches, roads and bridges, none of which are shown within the general area containing the Site.

**Table 13.5: Down Survey record of 17<sup>th</sup> century landowners of the townlands in the Site**

Townland	Down Survey Name	1641 Owner	1670 Owner
Derrybeg	Formoyle & Dirryneba	Richard Martin and Daniell O'Flahartye	Walter Blake
Tullaghmore	'Mountain'	None listed	Richard Martin and Earl of Clanrickard
Tawnaghbeg	No record	No record	No record
Tullaghaby	Tullybroda	Daniell O'Flahartye	Richard Martin

Samuel Lewis's *The Topographical Dictionary of Ireland*<sup>8</sup> presents high-level descriptions of Irish parishes during the early decades of the 19<sup>th</sup> century which often provide information on contemporary land use patterns, historical events and the presence of archaeological sites and features of architectural heritage interest such as large country houses. The Development is located within the civil parish of Kilcummin and Lewis's description of this area does not contain references to any of the townlands within the Site. The Ordnance Survey Field Name Books compiled during the same period record that much of the general area was occupied by mountain bog with areas of improved land used for tillage and grazing<sup>9</sup>. Further details on the character of the Site and its environs during the 19<sup>th</sup> century are presented in the review of historical Ordnance Survey (OS) maps (**Section 13.4.10**).

<sup>8</sup> Lewis, S. (1837) *Topographical Dictionary of Ireland*. 2 Volumes, Lewis & Company, London

<sup>9</sup> <http://places.galwaylibrary.ie/place/52550>

The study area around the Site contains four recorded post-medieval archaeological sites, and these comprise a church and graveyard (GA039-015001- and GA039-015002-) located on the northern side of Lough Corrib, at a distance of 1.8km to the north of the Redline Boundary, a children's burial ground (GA039-009----) located 1.22km outside the southwest end of the boundary and the recorded location of a now levelled bridge (GA053-002----) which was formerly situated on the east side of an existing farm track which will be utilised as an access route to the Site from the N59. The Archaeological Survey of Ireland has published an inventory description for only one of these monuments and this comprises the following description of the children's burial ground (GA039-009----):

*On an oval hillock in bogland NW of Loch an Iarainn. All that is visible of this CBG, correctly Cnocán na bPáistí are some small stones outlining two to three rectangular graves beside a thorn tree. There is a large limestone erratic at NW end of the hillock.*

The Galway to Clifden branch of the Midlands Great Western railway formerly extended through the area to the south of the wind farm site and included the location of the Maam Cross station, which is in the area between and outside, the spoil storage and enhancement areas to the west of the main wind farm site. Construction of this branch commenced in 1890 and it comprised a single line of standard gauge measuring 5 feet 3 inches in width. The line was opened in 1895 but went into decline in the early decades of the 20<sup>th</sup> century and was closed in 1935. The tracks were removed thereafter and much of its former line within the study area is now occupied by a public road and sections of laneways, although a section of the line has been recently reconstructed to the east and west of the station. As detailed in **Sections 13.4.8** and **13.4.10**, the remains of the Maam Cross railway station are listed in the National Inventory of Architectural Heritage (NIAH ref. 30403902). No known elements of the former station, and its associated infrastructure, extend into the Redline Boundary.

### 13.3.3 Record of Monuments and Places

As detailed in **Section 13.4.2**, there are ten recorded archaeological monuments located within 2km of the Site, one of which is a 'redundant record' (GA039-019----), and none are located on the footprint of proposed construction areas (**Table 13.6**). None of these monuments are designated as National Monuments in State Ownership or Guardianship or have been assigned Preservation Orders but are protected through their inclusion in the Record of Monuments and Places.

**Table 13.6: Recorded Archaeological Monuments within 2km of the Site**

RMP no.	Class	Townland	ITM E	ITM N	Distance from nearest Turbine and other construction area
GA039-009----	Children's burial ground	DERREENNAGUSFOOR	500752	746645	1,530m southwest of T4 1,220m south-west of Met Mast
GA039-010----	Cairn - unclassified	DERROURA	505009	747484	1,690m to the east of T2
GA039-015001-	Church	DROIM SNAMHA	502231	749328	1,820m to the north of T3
GA039-015002-	Graveyard	DROIM SNAMHA	502207	749311	1,820m to the north of T3
GA053-002----	Bridge (levelled)	LETTERFORE, TULLAGHABOY	502935	745473	5m to east of existing access track
GA039-008----	Mine - copper	DERREENNAGUSFOOR	500412	747137	1,660m to west of T4
GA053-005----	Megalithic structure	LURGAN OR SHINDILLA	500284	745753	2,500m southwest of T6
GA053-004----	House - 18th/19th century	LURGAN OR SHINDILLA	500318	745784	2490m southwest of T6
GA053-006----	Quarry	LURGAN OR SHINDILLA	500123	745856	2,650m southwest of T6
GA039-019----	Redundant record	LOUGH CORRIB	503166	749499	1.890m north of T3

### 13.3.4 Topographical Files of the National Museum of Ireland

The National Museum of Ireland (NMI) Topographical File archive, which is stored in the museum premises at Kildare Street, Dublin was inspected as part of the assessment and contains no files for any of the townlands within the study area.

### 13.3.5 Aerial, Satellite and LiDAR Imagery

A review of online aerial/satellite images of the Site revealed that the lands within the Redline Boundary have been occupied by vacant areas of heathland with localised areas of cutaway bog since at least the 1990s. A review of LiDAR imagery of the Site (Digital Terrain Model), which was provided by the Developer, was also carried out (**Figure 13.6**). No surface traces of potential unrecorded archaeological sites or architectural heritage structures were noted within the Redline Boundary during the review of these sources. Further details on the review of these sources in relation to the locations of various elements of the Development within the Redline Boundary are presented in **Table 13.10**.

### 13.3.6 County Galway Development Plan

The current Record of Protected Structures for County Galway, as published in the *County Galway Development Plan 2022-2028*, does not list any structures within the Site. There are two Protected Structures located within 2km of the Redline Boundary and these comprise a roadside cottage (PS 3363) located 2km to the east of the Site and a road bridge

(PS 3359) located 280m to the southwest of the spoil storage area and ecological enhancement area at Maam Cross. There are no Architectural Conservation Areas located within the area. The planning objectives relevant to the cultural heritage resource presented in the Development Plan are detailed in **Section 13.2.4** of this chapter.

### 13.3.7 National Monuments in State Care

A review of the locations of National Monuments within the surrounding landscape revealed the presence of two examples within 10km of the Redline Boundary and both are located on islands in Lough Corrib (**Figure 13.10**). Castle Kirk (Caisleán na Circe) is a 13<sup>th</sup> century castle structure in State Guardianship and is situated on a small island located 3.8km to the north-east of the Site (National Monument no. 245/RMP GA039-020----). Saint Patrick's Church is situated on Inchagoill Island at a distance of 9.5km to the east of the Site and is a National Monument in State Ownership (National Monument no. 412/RMP GA040-013001-). Neither of these monuments possess recorded attributes that relate to formal visual alignments across the wider landscape. A review of a National Monuments Service dataset of National Monuments which are open to the public revealed that neither of these examples are listed as being accessible<sup>10</sup>.

### 13.3.8 National Inventory of Architectural Heritage

The National Inventory of Architectural Heritage does not list any structures or historic gardens within the Redline Boundary. The National Inventory of Architectural Heritage lists two other structures within 2km of the Redline Boundary and these comprise a late 19<sup>th</sup> century railway bridge (NIAH ref. 30405301) located 420m to the south of the Site and the Maam Cross railway station (NIAH ref. 30405902) located between the spoil storage areas and ecological enhancement areas (**Figure 13.1**).

### 13.3.9 Previous Archaeological Work in the Wider Area: Excavations Database

The Database of Irish Excavation Reports contains one entry for an archaeological investigation within a townland in the study area. This comprised 2018 programmes of archaeological test trenching conducted in advance of construction of the N59 Maam Cross to Bunnakill Road Project in the townlands of Lurgan or Shinadilla and Derreennagusfoor. Nothing of archaeological significance was identified during these site investigations<sup>11 12</sup>

<sup>10</sup> <https://www.archaeology.ie/monuments-to-visit>

<sup>11</sup> <https://excavations.ie/report/2018/Galway/0027064/>

<sup>12</sup> <http://excavations.ie/report/2018/Galway/0027063/>

### 13.3.10 Ordnance Survey Maps

The first edition 6-inch Ordnance Survey (OS) map (published in 1842), the 25-inch edition OS map (published in 1899) and the Cassini edition 6-inch OS map (published 1901) were reviewed as part of the assessment (**Figures 13.2, 13.3, 13.4, 13.5 and 13.8**). The coverage of the 25-inch OS map does not extend into the southern area of the Site but does encompass all of the proposed turbine locations. These maps show the lands within Redline Boundary as vacant, marginal heathland with areas of enclosed farmland shown in external lands to the east, south and west. No potential unrecorded archaeological sites or undesignated structures of potential architectural heritage interest were noted within proposed construction areas during the review of these cartographic sources. The location of Letterfore Bridge (GA053-002----) which formerly spanned a watercourse on the west side of the Site access route from the N59 is shown on the OS maps and the 25-inch map indicates that it was 'in ruins' by the end of the 19<sup>th</sup> century (**Figures 13.4 and 13.5**). The existing surface track extending to its location from the road to the south is shown on the first edition 6-inch map and the 25-inch map shows that the track was extended to the north of the bridge by the end of the 19<sup>th</sup> century, likely at a time when the ruined bridge was no longer in use.

The Cassini edition 6-inch map shows the Galway and Clifden line of the Midland Great Western railway line extending broadly east to west in the area to the south of the Site and much of its former route is now occupied by a public road. A section of the railway line is shown extending through the area between the spoil storage and enhancement areas to the west of the main Site (**Figure 13.8**). These areas are shown as vacant plots on the historic OS maps and no associated railway infrastructure is depicted within the Redline Boundary in this area. Further details of the depictions of the locations of various elements of the Development within the Redline Boundary on these cartographic sources are presented in **Table 13.10**.

### 13.3.11 Undesignated Cultural Heritage Assets

While encompassing the protected archaeological and architectural heritage resources, cultural heritage also includes various undesignated assets such as demesne landscapes and vernacular structures as well as intangible assets such as folklore, placenames and historical events and associations.

The Site extends into four townlands which are the smallest unit of land division in the Irish landscape, and many may preserve early Gaelic territorial boundaries that pre-date the Anglo-Norman conquest. Townland boundaries were recorded and standardised by the

Ordnance Survey (OS) during the 19<sup>th</sup> century and their names typically comprise anglicisations of their original Irish names which often refer to natural topographical features, past landowners and farming practices, but some may also indicate the presence of archaeological sites within the townland, e.g. lios or rath typically indicate the presence of a ringfort while temple, saggart, termon or kill may record associations with a church site. The translations of the names of the townlands into which the Site extends were sourced from the Placenames Database<sup>13</sup> and none refer to potential unrecorded archaeological sites (**Table 13.7**).

**Table 13.7: Translation of Townland Names within Site**

Townland	Irish Origin	Translation	Archaeological Indicator?
Tullaghmore	<i>An Tulach Mhór</i>	Large hillock	No
Derrybeg	<i>Doire Beag</i>	Small oak wood	No
Tawnaghbeg	<i>An Tamhnach Bheag</i>	Small field	No
Tullaghaby	<i>Na Tulacha Buí</i>	Yellow hill	No
Lurgan or Shindella	<i>An Lorgain nó Sindile</i>	Lurgan - long low ridge	No
Letterfore	<i>Leitir Feoir</i>	Leitir - hillside	

While a number of townland boundaries are shown extending through the Site on the historic OS maps, the field surveys carried out as part of the assessment revealed that there are no surface traces of any land division features, such as banks or ditches, located on their lines and no appear to be shown on the reviewed cartographic sources.

A review of the National Folklore Schools Collection<sup>14</sup> did not reveal any entries relating to records of cultural heritage sites or traditions associated with any of the townlands extending into the Site.

A number of filming locations for the 1952 Quiet Man film are located within the wider area around the Site and comprise visual receptors of cultural heritage interest. None of these receptors are located within the Site and those within the wider landscape were appraised as part of the Landscape and Visual Amenity assessment (Chapter 11).

### 13.3.12 Grid Connection

A review of potential cultural heritage constraints within a 100m wide area centred on the underground grid connection route within public roads and an existing farm track within the Site was carried out. These constraints comprise designated features listed in the Record

<sup>13</sup> [www.logainm.ie](http://www.logainm.ie)

<sup>14</sup> [www.duchas.ie](http://www.duchas.ie)

of Protected Structures, the Record of Monuments and Places and the National Inventory of Architectural Heritage as well as any undesignated features identified during the assessment. Details on all identified constraints within the environs of the route are presented in **Table 13.8** (also shown on **Figure 13.9**).

While the roadway forming the south end of the route extends into the Galway Gaeltacht area, there are no settlement centres or cultural heritage centres located adjacent to the route. The region has notable associations with intangible elements of the cultural heritage resource such as music, including language, singing, poetry and dance traditions.

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**Table 13:8: Collated information on known cultural heritage constraints within 100m of grid route options**

Designation	Class	NIAH	ITM E	ITM N	Inventory Description	Notes
PS 3959	Bridge	30406504	495084	738290	Triple-span road bridge, built c.1820. This finely constructed road bridge attests to the expansion of the road network in the west of Ireland. This expansion of the road networks would have greatly improved the economy and communications in this remote area thereby making this an important social as well as technical monument (Galway County Development Plan)	This bridge is to east of Screeb substation and is located along the grid route. The use of HDD at this location will avoid any interventions to the bridge structure and any potential unrecorded archaeological features that may exist within the associated watercourse
PS 690	House	30406505	496446	738209	Screeb Lodge Guest House. Detached asymmetrical 3 bay 2 storey house over raised basement, built c 1865. Various extensions, c 1910. The exterior is rendered and has a hipped roof and replacement windows. The interior retains some original joinery. Picturesquely set on elevated site overlooking lake. (Galway County Development Plan)	This house is located to east of Screeb substation and is within the environs of the grid connection route. It is located c. 60m to south of the public road forming the route and no interventions to its location or associated curtilage will occur
PS 3359	Bridge	30403903	497587	746085	Single-arch road bridge, built c.1830, spanning channel between arms of Ardderry Lough. This bridge carries the approach road to Maam Cross from the south, thus integrating the road network in Connemara. The bridge is in good condition and bracing plates have been added to reinforce the bridge with the increased traffic. (Galway County Development Plan)	Located on the public road forming the grid route. The use of HDD at this location will avoid any interventions to the bridge structure and any potential unrecorded archaeological features that may exist within the associated watercourse
RMP GA053-006----	Quarry	-	500123	745856	Marked on the 1st edition of the OS 6-inch map as a large sand pit. Not shown on the 1898 resurvey of the map but the name 'Fairy House', in Gothic script, had been added. However, this name was appended to a building c. 190m to the SE - see GA053-004---- on the 1st edition map, so its inclusion on the 1898 resurvey may relate to a mapping error. The site was not visited but the cartographic evidence suggests it was a quarry. As it is of post-AD 1700 date it does not come within the remit of the Archaeological Survey of Ireland.	The quarry is located 30m to the south of roadway forming part of the north end of the grid route and no works will be carried out at its location
RMP GA053-004----	House	-	500318	745784	No inventory entry	The house is located 100m to the south of the roadway forming part of the north end of the grid route and no works will be carried out at its location
RMP GA053-002----	Bridge	-	502935	745473	No inventory entry. A review of OS maps revealed that it was annotated as being 'in ruins' by the end of the 19 <sup>th</sup> century and an inspection of its location carried out as part of the assessment revealed that it has been removed	This bridge structure is no longer extant. The grid route will extend along an existing track to the west of the watercourse formerly spanned by the bridge and will avoid its former location

Designation	Class	NIAH	ITM E	ITM N	Inventory Description	Notes
None	Knockadav Bridge	-	497058	742381	No inventory entry. Undesignated single arch road bridge likely dating to second half of the 19 <sup>th</sup> century	Located on the public road forming the grid route. The use of HDD at this location will avoid any interventions to the bridge structure and any potential unrecorded archaeological features that may exist within the associated watercourse

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### 13.3.13 Haul Route Work Areas

A review was conducted of designated cultural heritage constraints within lands extending for 100m in all directions from the locations of six proposed work areas required to facilitate the delivery of the turbines to the Site from Galway city (**Figure 13.11**). The reviewed constraints comprised the Record of Protected Structures, the Record of Monuments and Places and the National Inventory of Architectural Heritage. A review of historic mapping of each of the proposed works areas was also carried out in order to ascertain if any undesignated cultural heritage features existed at the locations. Details on all identified constraints within the environs of the work areas are presented in **Table 13.9** and no proposed ground works on the footprint of any of these constraints were noted.

**Table 13.9: Known cultural heritage constraints within environs of work areas**

Work Area No.	Location summary	Cultural Heritage Constraints
1	Third Party Lands to east of R336.	No known constraints at the location
2	Third Party Lands to east of R336.	No known constraints at the location
3	Third Party Lands to the west of the R336 and north of R336	No known constraints at the location of the junction requiring works. Screeb House is located 270m to the southwest of the junction and is a Protected Structure (Galway Co. Council ref. RPS 690). A review of historic OS maps revealed no associated curtilage features at the proposed work area
4	Third Party Lands to the west of the R336	No known constraints at the location
5	Galway CC Lands on Browne roundabout	No known constraints at the location
6	Galway CC Lands on Joyce roundabout and on lands to west	The boundary wall of Bohermore Cemetery to the south of the roundabout is included in the National Inventory of Architectural Heritage (NIAH 30310004). The recorded location of a folly feature located c. 30m to the northwest of the roundabout (on the south side of Tuam Road) is a listed archaeological site (GA082-084----). The recorded location of the remains of a 17th century bastioned fort (GA082-083----) and an earthwork (GA094-129002-) are located within developed areas on the south side of the road to the west of the roundabout. No works are proposed at the locations of any of these constraints ( <b>Figure 13.12</b> )

### 13.3.14 Field Work

Field surveys of the locations of proposed construction areas within the Site, the spoil storage/ecological enhancement areas, the grid connection route and haul route work areas were carried out in August 2020 and July 2022 as part of the assessment. The purpose of the surveys was to assess the potential for direct or indirect impacts on the locations and settings of known monuments and to also establish if any unrecorded features of cultural

heritage interest exist within proposed construction locations. The surveys also assisted in the appraisal of the potential for the presence of sub-surface archaeological sites or features within proposed construction areas. The results of the field surveys of the Development are presented in **Table 13.10**, which also collates relevant information gathered during the desktop study, including distances of known constraints from construction areas as well as details from historic mapping and modern aerial, satellite and LiDAR imagery.

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**Table 13.10: Field Survey Results**

Development Element	Nearest designated cultural heritage asset	Historic OS Map Detail	Aerial, Satellite and LiDAR imagery	Field Survey Notes
Turbine 1	Levelled bridge GA053-002----- located 1.27km to south	Vacant heath. The townland boundary between Tullaghmore and Tawnaghbeg is shown extending through the proposed location of the turbine hardstand	No potential unrecorded archaeological or architectural heritage features identified at location	Located within generally level area of open heath with commercial forestry to east. No surface traces of any features demarcating the townland boundary exist in the area. No surface traces of potential unrecorded archaeological or architectural heritage features were identified at proposed turbine location or along the route of the access track (Appendix 13.1; Plate 13.1)
Turbine 2	Cairn GA039-010---- located 1.69km to east	Vacant heath	No potential unrecorded archaeological or architectural heritage features identified at location	Located near southern base of hillslope in area of open heath with commercial forestry to east. No surface traces of potential unrecorded archaeological or architectural heritage features were identified at proposed turbine location or along the route of the access track (Appendix 13.1; Plate 13.2)
Turbine 3	Cairn GA039-010---- located 2.17km to east	Vacant heath	No potential unrecorded archaeological or architectural heritage features identified at location	Located in vacant upland rocky heath on south-facing hillslope. The terrain in the area is undulating with surface bedrock outcrops visible. No surface traces of potential unrecorded archaeological or architectural heritage features were identified at proposed turbine location or along the route of the access track (Appendix 13.1; Plate 13.3)
Turbine 4	Children's burial ground GA039-009---- located 1.53km to southwest	Vacant heath. The townland boundary between Tullaghmore and Derrybeg is shown extending through the route of the access track to location	No potential unrecorded archaeological or architectural heritage features identified at location	Located in vacant upland rocky heath on west-facing hillslope. The terrain in the area is moderately sloping down to west with surface bedrock outcrops visible. No surface traces of any features demarcating the line of the townland boundary at the location where it intersects with the access track were noted. No surface traces of potential unrecorded archaeological or architectural heritage features were identified at proposed turbine location or along the route of the access track (Appendix 13.1; Plate 13.4)
Turbine 5	Levelled bridge GA053-002----- located 1.64km to south	Vacant heath	No potential unrecorded archaeological or architectural heritage features identified at location	Located in vacant upland rocky heath on south-facing hillslope. The terrain in the area is undulating with surface bedrock outcrops visible. No surface traces of potential unrecorded archaeological or architectural heritage features were identified at proposed turbine location or along the route of the access track (Appendix 13.1; Plate 13.5)

Development Element	Nearest designated cultural heritage asset	Historic OS Map Detail	Aerial, Satellite and LiDAR imagery	Field Survey Notes
Turbine 6	Levelled bridge GA053-002----- located 1.11km to south	Vacant heath. The townland boundary between Tullaghmore and Tawnaghbeg is shown extending through the proposed location of the turbine hardstand	No potential unrecorded archaeological or architectural heritage features identified at location	Located in marginal area of semi-improved grassland in area of undulating terrain near the southern base of the hillslope. No surface traces of any features demarcating the townland boundary exist in the area. No surface traces of potential unrecorded archaeological or architectural heritage features were identified at proposed turbine location or along the route of the access track (Appendix 13.1; Plate 13.6)
Site Compound	Levelled bridge GA053-002----- located 0.62km to northeast	Area of vacant heath adjacent to farm track	No potential unrecorded archaeological or architectural heritage features identified at location	Within area of level heath adjacent to existing surface farm track near Site entrance onto the N59 road. No surface traces of potential unrecorded archaeological or architectural heritage features were identified at proposed location
Substation	Children's burial ground GA039-009---- located 1.44km to west	Vacant heath	No potential unrecorded archaeological or architectural heritage features identified at location	Located in level area of heath at base of rocky ridge on northeast side. No surface traces of potential unrecorded archaeological or architectural heritage features were identified at proposed location or along the route of its access track (Appendix 13.1; Plate 13.7)
Met Mast	Children's burial ground GA039-009---- located 1.2km to west	Vacant heath	No potential unrecorded archaeological or architectural heritage features identified at location	Located in area of undulating terrain near the southwest base of hillslope. No surface traces of potential unrecorded archaeological or architectural heritage features were identified at proposed turbine location or along the route of the access track (Appendix 13.1; Plate 13.8)
Access track from N59	Former location of levelled bridge GA053-002----- located adjacent to east of section of existing track	An existing farm track along the southern end of the access route into the Site is shown on the historic OS maps. This led to Lettermore Bridge (GA053-002----), which is no longer extant. A schoolhouse is indicated in an area c.30m to the north of the track entrance on the 1842 6-inch OS map but is not labelled on the later Cassini edition of 1901. Two sheepfolds are also shown	No potential unrecorded archaeological or architectural heritage features were identified within the environs of the existing track or within the vacant heath along the route of the new section of track to be constructed.	The access to the Site from the N59 will be via an existing surfaced farm track which extends for c. 1.2km from the public road. The former location of a levelled bridge structure (GA053-002----) which spanned a watercourse on the east side of the existing track was inspected and no traces of any remnant structural remains were present. The site access in this area will utilise the exiting surfaced farm track and no excavation works along the watercourse bank will be required. The access route will also incorporate an existing modern bridge along a section of the farm track which spans the watercourse. A new section of access track will extend for c. 850m from the terminal of the farm track towards the location of T1. This section extends through an area of vacant heath which rises gradually to the north. The former location of the schoolhouse shown to the north of the track on the 1842 OS map is overgrown

Development Element	Nearest designated cultural heritage asset	Historic OS Map Detail	Aerial, Satellite and LiDAR imagery	Field Survey Notes
		close to the track on the OS maps.		but no surface traces of any structures were noted during a visual appraisal of its former location. In addition, no surface traces of the two sheepfolds shown within the environs of the farm track on the historic OS maps were recorded. (Appendix 13.1; Plate 13.9)
Spoil storage and Enhancement Areas	Maam Cross Railway Station (NIAH 30405902)	Vacant heath	No potential unrecorded archaeological or architectural heritage features identified at location	These two plots comprise level areas of heath located to the north and south of the Maam Cross Railway Station. Neither area contains any structures associated with the railway and no surface traces of potential unrecorded archaeological or architectural heritage features were identified. (Appendix 13.1; Plates 13.11 to 13.14)
Grid connection route	Two road bridges listed as Protected Structures (PS 3959 and PS 3359) are along the route	While much of the existing road extending south from Maam Cross is present on the 1842 OS map, there is a c.2.2km long gap near the centre of the route which is shown as vacant land. There is also no road shown between the Screeb Lodge area and the substation on this map. The detail on the 1901 OS map shows that the section of roads in these areas had been completed by the end of the 19 <sup>th</sup> century.	No potential unrecorded archaeological or architectural heritage features were identified during a review of satellite images of lands along the existing road margins	<p>Bridge PS3359: This road bridge to the south of Maam Cross remains extant although sections along the west side, including the parapet wall have been recently rebuilt. (Appendix 13.1; Plates 13.15 to 13.17)</p> <p>Knockadav Bridge: This single arch masonry road bridge is not listed in the RPS or NIAH and there is no roadway shown in this area on the 1842 OS map. It is, nonetheless, a well-preserved example of a late 19<sup>th</sup> century bridge associated with the expansion of the road network at that time. (Appendix 13.1; Plate 13.8)</p> <p>Screeb Lodge PS690: This mid-19<sup>th</sup> century structure is located 50m to the south of the road which will form part of the route. A section of a random rubble boundary wall around the property flanks the south side of the roadway</p> <p>Bridge PS3959: This triple arch road bridge to the west of Screeb substation remains extant although the northern parapet wall has been recently rebuilt. (Appendix 13.1; Plate 13.19) (locations mapped on Figure 13.9)</p>

Development Element	Nearest designated cultural heritage asset	Historic OS Map Detail	Aerial, Satellite and LiDAR imagery	Field Survey Notes
Haul route areas	Boundary wall of Bohermore Cemetery to the south of the Joyce roundabout (Work Area no. 6) in Galway city is included in the NIAH (ref. 30310004)	No potential unrecorded cultural heritage features were noted during a review of historic OS maps of the work area locations	No potential unrecorded archaeological or architectural heritage features were identified during a review of satellite images of lands along the existing road margins	Four of the works areas (Nos. 1-4) are located within areas of the road forming the grid route connection between the Site and no potential unrecorded cultural heritage features were noted at their locations during the survey of this area. Windscreen surveys of the two work areas (Nos. 4 and 5) in Galway city revealed the sections of road to be modern in date and contain no features of cultural heritage interest such as historic street furniture. No elements of the known cultural heritage sites within the environs of Joyce roundabout (see Table 13.10 - Work Area 6) extend into the roadway in this area.

### 13.3.15 Summary

#### *The Site*

There are no extant recorded archaeological monuments located within the Redline Boundary (**Figure 13.1**). A levelled bridge structure within the Redline Boundary is listed as an archaeological site (GA053-002----) and its former location was over a stream on the eastern side of an existing farm track which will be utilised as an access route to the Site from the N59. The bridge is no longer extant and no surviving traces were identified during the field inspection. No interventions to its former location or the section of the stream it formerly crossed will occur. There are no designated architectural heritage structures located within the Site. There are two Protected Structures located within 2km of the Redline Boundary and these comprise a roadside cottage (PS 3363) located 2km to the east of the Site and a road bridge (PS 3359) located 280m to the southwest of the spoil storage area and ecological enhancement area at Maam Cross. The National Inventory of Architectural Heritage lists two other structures within 2km of the Redline Boundary and these comprise a late 19<sup>th</sup> century railway bridge (NIAH ref. 30405301) located 420m to the south of the Site and the Maam Cross railway station (NIAH ref. 30405902) located between the spoil storage area and ecological enhancement areas. No potential undesigned features of cultural heritage interest, such as demesne lands or vernacular structures, were identified within the Redline Boundary during the desktop study and field surveys carried out as part of this assessment.

#### *Grid Connection Route*

The route crosses two masonry road bridges that are listed as Protected Structures (PS 3959 and PS 3359) (**Figure 13.9**). The use of horizontal directional drilling at the locations of these bridges will avoid any interventions to both of these Protected Structures and their associated watercourses. There are three recorded archaeological sites located within lands in the environs of the northern section of the route and these comprise a house (GA053-004----), quarry (GA053-006----) and levelled bridge (GA053-002----). No works are proposed at the recorded locations of these archaeological sites. In addition, while the southern end of the route extends through the Galway Gaeltacht it does not extend through any towns or villages located within this area (**Figure 13.9**).

#### *Haul Route Work Areas*

While there are a number of recorded cultural heritage constraints located within the environs of a proposed work area at Joyce's Roundabout in Galway city, none are located within the footprint of the modern roadway that will be subject to these works (**Figure 13.10**). No known constraints were identified within areas extending for 100m in all directions from the other proposed work areas.

## 13.4 ASSESSMENT OF POTENTIAL EFFECTS

### 13.4.1 Introduction

The following section presents assessments of potential impacts on identified cultural heritage assets within the environs of the various elements of the Development. The values assigned to the various assets were determined based on their classifications, the results of the desktop study and inspections of accessible sites and follow the criteria guidelines outlined in **Table 13.2**. The known cultural heritage assets located within inaccessible private lands surrounding the Development comprise features of medium-high values and their current condition and indicative values, as well as potential sensitivities to indirect impacts of a visual nature, have been assessed based on their classifications, designations, inventory descriptions and reviews of historical maps and modern aerial/satellite images and follow the ICOMOS guidelines summarised in **Table 13.2** of this chapter. It should be noted that all archaeological sites, including levelled examples, have the potential to possess subsurface features, artefacts, human burials and other archaeological remains, that may be of High or Very High values, but this cannot be ascertained without recourse to archaeological excavation, and these are attributes unlikely to be subject to effects in the absence of direct impacts.

### 13.4.2 Construction Phase – Direct Impacts

#### *Wind Farm Site*

The construction phase will have no predicted direct impacts on the known archaeological monuments within the wider landscape surrounding the Site. The use of an existing trackway close to the recorded location of a now levelled bridge (GA053-002----) as an access route to the Site from the N59 will involve no works at the former location of this structure. In addition, there are no designated architectural structures located within Site and no undesignated features of cultural heritage interest were identified at proposed construction areas during the desktop study and field surveys. It is, therefore, concluded that the construction phase within the Site will result in no predicted direct impacts on the known cultural heritage resource. While the existence, location, extent and significance of any unrecorded, sub-surface archaeological remains that may be present within the Site is unknown, the potential exists for direct, negative and permanent construction phase impacts on any such remains situated within the footprint of proposed construction areas.

#### *Grid Connection*

There are three recorded archaeological sites located within the section of the 100m wide study area centred on the grid connection route and these comprise a house (GA053-004-

---), quarry (GA053-006----) and a levelled bridge (GA053-002----). The excavation of the cable trench within existing roads and tracks will have no predicted impacts on these archaeological sites. There are two masonry road bridges listed as Protected Structures (PS 3959 and 3359) located within the section of the study area centred on the grid connection route. A third 19<sup>th</sup> century masonry bridge on the route (Knockadav Bridge) is not a designated structure but is deemed to be of local architectural heritage significance. The grid connection methodology at their locations will involve the use of horizontal directional drilling under the watercourses and will not require any works to the masonry bridges at these locations. This methodology will also avoid impacts on the watercourses which may contain potential unrecorded underwater archaeological features or artefacts. The construction phase of the grid connection route will, therefore, result in no direct impacts on known tangible cultural heritage assets.

The southern end of the route extends through a section of the Galway Gaeltacht area and no direct impacts on intangible language aspects of the cultural heritage are predicted.

#### *Haul Route Work Areas*

There are no recorded cultural heritage constraints located within the footprint of proposed construction phase works areas required to facilitate the delivery of turbines to the Site and these works will, therefore, result in no predicted impacts on the cultural heritage resource.

### **13.4.3 Construction Phase – Indirect Impacts**

#### *Wind Farm Site*

There are no extant recorded archaeological monuments located within 1.53km of any proposed turbine locations and the construction phase of the Development will, therefore, have no predicted indirect impacts on the settings of any recorded archaeological monuments. There are two Protected Structures located within 2km of the Redline Boundary and these comprise roadside cottage (PS 3363) located 2km to the east of the Site and a road bridge (PS 3359) located 280m to the southwest of the spoil storage area and ecological enhancement area at Maam Cross. The National Inventory of Architectural Heritage lists two other structures within 2km of the Redline Boundary and these comprise a late 19<sup>th</sup> century railway bridge (NIAH ref. 30405301) located 420m to the south of the Site and the Maam Cross railway station (NIAH ref. 30405902) located between the two spoil/enhancement areas. The creation of the proposed spoil storage and enhancement areas on either side of the Maam Cross Railway Station (NIAH ref. 30403902) will result in a **low magnitude, short-term, indirect, slight impact** on the environs of the station during the construction phase.

### *Grid Connection Route*

The grid connection ground excavation works during the construction phase will result in no likely indirect impacts on the known cultural heritage resource as there are no recorded cultural heritage assets on the footprint of excavation works within the public roads or green field areas. The use of horizontal directional drilling at the locations of masonry road bridges along the route, including Protected Structures PS3959 and PS3359 as well as the undesignated Knockadav Bridge, and their associated watercourses will result in no predicted indirect impacts on these structures or any potential unrecorded underwater archaeological remains at their locations.

The southern end of the roadway forming the grid route extends into the Galway Gaeltacht area. While the construction phase will see the arrival of construction workers to the area, this will be a short term occurrence and will not result in permanent settlement of the area by non-Irish speakers. This element of the Development is, therefore, predicted to result in a **not significant indirect impact** on the Irish language during the construction phase.

### *Haul Route Work Areas*

The ground excavations within the haul route work areas during the construction phase will result in no likely indirect impacts on the known cultural heritage resource as there are no recorded cultural heritage assets within the footprint of the work locations within the public roads and adjacent grass verges. While there are a number of known constraints within the environs of proposed works at Joyce's Roundabout in Galway city, these are located within properties adjacent to the existing modern roadway and no indirect impacts are predicted during proposed works within the roadway.

## **13.4.4 Operational Phase – Direct Impacts**

### *Wind Farm*

Given the absence of any known cultural heritage constraints within the environs of turbines and associated site infrastructure the operational phase of the wind farm will result in no predicted direct impacts on the known archaeological, architectural and cultural heritage resources. In addition, the successful implementation of the construction phase mitigation measures outlined in **Section 13.5** will result in the preservation in situ (by avoidance) or the preservation in record (by archaeological excavation) of any unrecorded, sub-surface archaeological sites or features that may exist within proposed construction areas. There will, therefore, be no predicted direct impacts on any such potential unrecorded archaeological sites during the operational phase.

### *Grid Connection*

As the grid connection will comprise a buried cable within existing roads and tracks it will, therefore, result in no predicted direct impacts on the cultural heritage resource during the operational phase.

### *Haul Route*

In the event that any turbines are required to be replaced using the same haul route during the operational phase, no likely direct impacts on the cultural resource are predicted.

## **13.4.5 Operational Phase – Indirect Impacts**

### *Wind Farm*

There are no extant archaeological monuments with surviving surface expressions within 1.53km of any of the turbines. While the turbines will likely be visible from a variety of archaeological monuments located in private properties in the surrounding landscape, given their distances from the Site and the absence of examples with visual alignment sensitivities towards the Site, this will not result in a noticeable change in the character of the surrounding landscape and will have low magnitude impacts on their settings and sensitivities. The Development will, therefore, result in **slight to moderate, indirect, long term, negative** impacts on the wider settings of known cultural heritage assets located within the surrounding landscape during the operational phase (**Table 13.11**). The recorded archaeological resource within an area extending for 10km from the Site was reviewed to determine if any ritual monuments, such as stone circles or megaliths, within the wider landscape have visual alignments set towards the Site and none were noted. A review of the locations of National Monuments within the surrounding landscape revealed the presence of two examples within 10km of the Redline Boundary and both are located on islands in Lough Corrib. Castle Kirk (National Monument no. 245) is a 13<sup>th</sup> century castle located 3.8km to the north-west of the Site (National Monument no. 245) and Saint Patrick's Church (National Monument no. 412) is 9.5km to the east of the Site. Neither of these are included in a National Monuments Service list of National Monuments that are accessible to the public<sup>15</sup>. While the locations of these monuments are inaccessible, it is noted that the Landscape and Visual Amenity chapter concludes that no likely significant visual impacts were identified from assessed viewpoints from other locations to the north and east of the Site and these include views from the R345 road which traverses the area to the north of the island containing Castle Kirk (see Chapter 11). Given this factor, combined with the

<sup>15</sup> <https://data.gov.ie/dataset/national-monuments-service-monuments-to-visit>

distances of these inaccessible monuments from the Site, it is concluded that no likely significant indirect impacts on their settings or any amenity attributes are predicted during the operational phase.

#### *Grid Connection*

As the grid connection will comprise a buried cable within existing roads it will, therefore, result in no predicted indirect impacts on the cultural heritage resource during the operational phase.

#### *Haul Route*

In the event that any turbines are required to be replaced using the same haul route during the operational phase, no likely indirect impacts on the cultural resource are predicted.

**Table 13.11: Summary of operational phase indirect impacts on cultural heritage assets in study area**

Designation	Classification	Development element within environs	Asset Value	Quality of impact	Magnitude of impact	Duration	Significance
GA039-009----	Children's burial ground	Wind farm	High	Negative	Low	Long term (reversible)	Slight
GA039-010----	Cairn - unclassified	Wind farm	High	Negative	Medium	Long term (reversible)	Moderate
GA039-015001-	Church	Wind farm	High	Negative	Low	Long term (reversible)	Slight
GA039-015002-	Graveyard	Wind farm	High	Negative	Low	n/a	None
GA053-002----	Bridge (levelled)	Wind farm	Low	Negative	Negligible	Long term (reversible)	Slight
GA039-008----	Mine - copper	Wind farm	Medium	Neutral	n/a	Long term (rev)	Slight
GA053-005----	Megalithic structure	Wind farm	High	Negative	Low	Long term (reversible)	Slight
GA053-004----	House - 18th/19th century	Wind farm	Medium	Negative	Low	Long term (reversible)	Slight
GA053-006----	Quarry	Wind farm	Medium	Negative	Negligible	Long term (reversible)	Slight
GA039-019----	Redundant record	Wind farm	Negligible	Neutral	n/a	n/a	None
RPS 3363	Cottage	Wind farm	Medium to High	Negative	Low	Long term (reversible)	Slight
NIAH 30405301	Railway bridge	Wind farm	Medium	Negative	Low	Long term (reversible)	Slight

Designation	Classification	Development element within environs	Asset Value	Quality of impact	Magnitude of impact	Duration	Significance
NIAH 30405902	Maam Cross Railway Station	Wind farm (& Spoil storage enhancement area)	Medium	Neutral	Low (wind farm) Negligible (spoil storage)	Long term (reversible)	None
PS 3959	Road bridge	Grid connection	Medium to High	Neutral	n/a	n/a	None
PS 690	House	Grid connection	Medium to High	Neutral	n/a	n/a	None
PS 3359	Road bridge	Grid connection	Medium to High	Neutral	n/a	n/a	None
None	Knockadav Bridge	Grid connection	Medium	Neutral	n/a	n/a	None

### 13.5 MITIGATION MEASURES AND RESIDUAL EFFECTS

#### 13.5.1 Construction Phase

Ground works during the construction phase of the Development will be subject to archaeological monitoring under licence by the National Monuments Service. In the event that any sub-surface archaeological features are identified during these site investigations they will be recorded and then securely cordoned off while the National Monuments Service are consulted to determine further appropriate mitigation measures, which may include preservation in situ (by avoidance) or preservation by record (archaeological excavation). The Development will result in no predicted direct impacts on any architectural heritage assets and no mitigation measures for this resource are required.

The southern section of the roadway forming the grid connection route extends into the Galway Gaeltacht area and any signage erected within the public realm in this area during the construction phase will include Irish and English text.

#### 13.5.2 Construction Phase Residual Impacts – Direct

The mitigation measures presented in **Section 13.5.1** will provide for either the preservation *in situ* of any currently unknown, sub-surface archaeological features within the Site by avoidance or the proper and adequate recording of this resource by full archaeological excavation. Preservation *in situ* shall allow for a negligible magnitude of impact resulting in a potential not significant/imperceptible significance of effect in the context of residual impact on the unrecorded archaeological resource. Preservation by record shall allow for a high magnitude of impact, albeit ameliorated by the creation of a full and detailed

archaeological record, the results of which shall be publicly disseminated. This shall result in a potential slight/moderate range of significance of effect in the context of residual impacts on the unrecorded archaeological resource.

### 13.5.3 Construction Phase Residual Impacts – Indirect

No residual construction phase indirect impacts are predicted following the implementation of the mitigation measures.

### 13.5.4 Operational Phase

Following the implementation of the mitigation measures presented in **Section 13.5.1**, the operational phase of the Development will result in no predicted direct impacts on the archaeological, architectural and cultural heritage resources and, therefore, no mitigation measures for direct operational phase impacts will be required.

As detailed in **Section 13.4.5**, the operational phase of the Development will result in long term, slight to moderate, indirect, negative impacts of a visual nature on the wider setting of archaeological sites within the surrounding landscape. Given the nature of the wind farm turbines there are no mitigation measures that can ameliorate these visual impacts, but it is noted that they will be reversed following the decommissioning phase.

### 13.5.5 Operation Phase Residual Impacts - Direct

Following the successful implementation of mitigation measures, the operational phase of the Development will result in no predicted residual direct impacts on the archaeological, architectural and cultural heritage resources.

### 13.5.6 Operation Phase Residual Impacts - Indirect

The operation phase will result in a range of slight to moderate, long term, residual indirect impacts on cultural heritage assets within the environs of the Development which will be reversed following decommissioning.

## 13.6 CUMULATIVE IMPACTS

A review of operational, permitted and proposed wind farm developments within 20km of the Development was carried out in order to assess potential cumulative impacts on the cultural heritage resource (**Table 13.12**). This included a review of available archaeological and cultural heritage impact assessments of these developments included in the online planning files published on the Galway County Council planning enquiry systems as well as the Database of Irish Excavation Reports.

**Table 13.12: Review of project list of Cumulative Impacts developments**

Wind Farm	Status	No. of Turbines	Approximate Distance to the Site Boundary	Cultural Heritage Review
Knockranny	Consented	11	c. 15km to Southeast	A review of the EIS prepared for this development as published on the Galway County Council Planning Enquiry System revealed that no significant impacts on the cultural heritage resource were predicted <sup>16</sup>
Galway Wind Park Phase 1, Cloosh Valley/Seecon	Operational	36	c. 6.8km to Southeast	A review of the Non-Technical Summary of the EIS for this development as published on the Galway County Council Planning Enquiry System revealed that no significant impacts on the cultural heritage resource were predicted <sup>17</sup>
Galway Wind Park Phase 2, Ugool/Lettercraffe	Operational	22	c. 10km to Southeast	A review of the EIS prepared for this development as published on the Galway County Council Planning Enquiry System revealed that no significant impacts on the cultural heritage resource were predicted <sup>18</sup>
Galway Wind Park Phase 3, Derradda, Seecon, Shannapheastee n, Ugool, Letter, Finnaun	Consented	9	8.5km to Southeast	A review of the EIS prepared for this development as published on the Galway County Council Planning Enquiry System revealed that no significant impacts on the cultural heritage resource were predicted <sup>19</sup>
Ardderroo	Consented	25	c. 13.5km to Southeast	A review of the EIAR for this development, which is included in the An Bord Pleanála online planning file <sup>20</sup> , revealed that it concluded that no significant impacts on the cultural heritage resource were predicted.

The Database of Irish Excavation Reports contains two entries in relation to archaeological monitoring of the Galway Wind Park development which notes that no sub-surface archaeological remains were identified at the location during the construction phase<sup>21 22</sup>.

Given the absence of significant direct impacts on the recorded cultural heritage resource arising from the Development, in combination with the results of the above review of wind farms, the proposed Development is not predicted to contribute to any significant direct cumulative impacts on the cultural heritage resource of the wider area. In addition, as described in **Section 13.3.2** a review of archaeological monument types with visual alignment attributes within 10km of the Site revealed that the Development will not result in any predicted moderate or significant indirect negative impacts on their settings or alignments. The review of available cultural heritage impact assessments of the wind farm

<sup>16</sup> <http://gccapps.galwaycoco.ie/ViewExternalDocuments/ViewPDF.aspx?RefNo=11375&ViewFind=true&ref=1712505>

<sup>17</sup> <http://gccapps.galwaycoco.ie/ViewExternalDocuments/ViewPDF.aspx?RefNo=111735&ViewFind=true&ref=1765500>

<sup>18</sup> <http://gccapps.galwaycoco.ie/ViewExternalDocuments/ViewPDF.aspx?RefNo=091698&ViewFind=true&ref=1595500>

<sup>19</sup> <http://gccapps.galwaycoco.ie/ViewExternalDocuments/ViewPDF.aspx?RefNo=10303&ViewFind=true&ref=1637969>

<sup>20</sup> <https://www.pleanala.ie/en-ie/case/303086>

<sup>21</sup> <http://excavations.ie/report/2015/Galway/0024551/>

<sup>22</sup> <https://excavations.ie/report/2016/Galway/0025637/>

developments listed in **Table 13.12** revealed that none of these assessments predicted significant, indirect impacts on any monuments within the wider environs of the assessed wind farm locations. Given these factors combined with the distances of the reviewed projects from the Development it is, therefore, concluded that the Development will not act in combination with the reviewed wind farm developments to result in likely significant indirect negative cumulative impacts on the settings or alignments of any visually sensitive cultural heritage assets within the wider landscape.

### 13.7 DECOMMISSIONING IMPACTS

No direct impacts on known elements of the cultural heritage resource are predicted during the decommissioning phase as there are no recorded extant cultural heritage assets located within the footprint, or close environs, of the various elements of the wind farm that will be subject to decommissioning. Any previously unrecorded archaeological remains identified during archaeological monitoring of the construction phase will either be preserved by avoidance or preserved by record (excavation) and no decommissioning impacts on such potential features are predicted. The decommissioning phase will result in the reversal of the long term, slight to moderate, indirect, negative visual impacts archaeological monuments located within the wider landscape.

### 13.8 CONCLUSIONS

The proposed development will not result in any direct negative impacts to any known archaeological monuments, designated architectural heritage structures or undesignated cultural heritage assets. The potential exists for the presence of unrecorded, sub-surface archaeological features within proposed construction areas within the Site. In the event that any sub-surface archaeological remains are identified during archaeological monitoring of the construction phase, they will be cleaned, recorded and left to remain *in situ* within cordoned off areas while the National Monuments Service are notified and consulted in relation to appropriate future mitigation strategies, which may entail preservation *in situ* by avoidance or preservation by record by archaeological excavations.

The Development will result in a range of negligible to slight indirect visual impacts on the settings of cultural heritage assets located in private properties within the surrounding landscape during the operational phase. These indirect impacts will be long term in duration and will be reversible following the decommissioning phase.

### **13.9 SUMMARY OF SIGNIFICANT EFFECTS**

No predicted significant direct, indirect or cumulative effects on the Cultural Heritage resource arising from the proposed Development have been identified.

### **13.10 STATEMENT OF SIGNIFICANCE**

An assessment has been made of the potential for significant effects of the Development on the cultural heritage resource. Following the application of effective mitigation measures based on best practice guidelines, which included specialist archaeological inputs during the Development design process, combined with the absence of known onsite cultural heritage constraints and archaeological monitoring of the construction phase, the Development is not predicted to result in any likely significant effects on the cultural heritage resource.

RECEIVED: 26/01/2023