

Environmental Impact Assessment Report

Cummeennabuddoge Wind Farm

Chapter 14: Archaeology, Architectural and Cultural Heritage

Cummeennabuddoge Wind (DAC)

September 2024



Contents

14 Archaeology, Architectural and Cultural Heritage	1
14.1 Introduction	1
14.1.1 Statement of Authority	1
14.2 Methodology and Approach	1
14.2.1 Desktop Study	2
14.2.2 Study Area	2
14.2.3 Field Inspection	3
14.2.4 Methodology used for assessing baseline value of sites	4
14.2.5 Type of impact	5
14.2.6 Assessing physical impacts	5
14.2.7 Assessing impacts on setting	6
14.2.8 Significance Criteria	8
14.2.9 Limitations of this EIAR Chapter	10
14.2.10 Legislation, planning policy and guidance	10
14.2.11 Consultation	13
14.3 Baseline Conditions	14
14.3.1 Topographical Description	14
14.3.2 Receiving Environment	14
14.3.3 Archaeological and historical context	23
14.3.4 Cartographic evidence	28
14.3.5 Toponymy of Townlands	29
14.3.6 Recent Excavations	31
14.3.7 Designated archaeological and architectural sites	32
14.3.8 Undesignated cultural heritage sites	37
14.3.9 Areas of Archaeological Potential (AAPs)	39
14.4 Assessment of Effects and Mitigation	40
14.4.1 Do-Nothing Scenario	40
14.4.2 Construction Phase Potential Effects – (Indirect)	40
14.4.3 Construction Phase Potential Effects – (Direct)	40
14.4.4 Operational Phase Potential Effects (Indirect)	44
14.4.5 Operational Phase Potential Effects (Direct)	47
14.4.6 Decommissioning Phase Effects	47
14.4.7 Cumulative Effects	47

Contents

14.5 Residual Effects and Conclusions	53
14.5.1 Proposed Mitigation/Monitoring	54
14.6 Summary and Statement of Significance	56
14.7 Reference List	57

Tables

Table 14-1: Study area definitions	2
Table 14-2: Baseline value of sites	4
Table 14-3: Types of Impact	5
Table 14-4: Criteria used for rating magnitude of impacts	5
Table 14-5: Factors to be considered when assessing impacts upon setting (English Heritage 2005)	7
Table 14-6: Criteria for assessing significance level of impacts	9
Table 14-7: Responses to Consultation process	13
Table 14-8: Turbine locations and setting	15
Table 14-9: Required works to facilitate delivery of materials to Proposed Development Site	20
Table 14-10: Placename information for townlands incorporated by the study area	29
Table 14-11: Recorded monuments within the study area	33
Table 14-12: Townland boundaries effected by the proposed development	38
Table 14-13: AAPs effected by the study area	39
Table 14-14: CH sites with potential for a direct effect from the Proposed Development	41
Table 14-15: CH sites with potential for an indirect effect from the Proposed Development	44
Table 14-16: Review of wind farms within 30km of the Project	48
Table 14-17: Residual Impacts to CH sites once mitigation measures have been implemented	55

Glossary of Terms

Term	Definition
The Applicant	Cummeennabuddoge Wind Designated Activity Company (DAC)
The Agent	Atmos Consulting Limited
Environmental Advisors and Planning Consultants	Atmos Consulting Limited
Environmental Impact Assessment	A means of carrying out, in a systematic way, an assessment of the likely significant environmental effects from a development
Environmental Impact Assessment Regulations	Schedule 6 of the Planning and Development Regulations 2001 (as amended)
Environmental Impact Assessment Report	A document reporting the findings of the EIA and produced in accordance with the EIA Regulations
The Proposed Development	Cummeennabuddoge Wind Farm
The Proposed Development Site	The land enclosed by the red line shown on Figure 1-1a
The Planning Act	Directive 2011/92/EU (as amended by Directive 2014/52/EU, the EIA Directive).

List of Abbreviations

Abbreviation	Description
AAP	Areas of archaeological potential
ACAs	Architectural Conservation Areas (ACAs).
CH	Cultural heritage
DAHGI	Department of Arts, Heritage, Gaeltacht and the Islands
DoHLGH	Department of Housing, Planning and Local Government
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EPA	Environmental Protection Agency
GPS	Global Positioning System
KCDP	Kerry County Development Plan
NIAH	National Inventory of Architectural Heritage
RMP	Record of Monuments and Places
RPS	Record of Protected Structures
RSES	Regional Spatial and Economic Strategy for the Southern Region)
SMR	Sites and Monuments Record
ZTV	Zone of Theoretical Visibility

14 Archaeology, Architectural and Cultural Heritage

14.1 Introduction

This chapter of the EIAR considers the archaeological, architectural and cultural heritage effects that need to be addressed in respect of the construction and operation of 17 wind turbines and associated infrastructure (the Proposed Development). The Proposed Development is described in full in Chapter 4 of this EIAR.

This study identifies the baseline archaeology and cultural heritage environment in order to evaluate the potential effects of the Proposed Development on this environment, and to provide mitigation measures to ameliorate these effects (if required) in accordance with the relevant policy and guidance.

14.1.1 Statement of Authority

This chapter of the EIAR was prepared by Dr. Enda O'Flaherty (BA, H-Dip, PhD) of Rubicon Heritage Services Ltd. He has worked as a professional archaeologist since 2006. He completed his PhD in archaeology in 2020 at the National University of Ireland, Galway.

14.2 Methodology and Approach

This section presents the methodology used in assessing the baseline cultural heritage environment. The scope and methodology for the baseline assessment has been devised in accordance with the following guidelines:

- Environmental Protection Agency (2002) 'Guidelines on the information to be contained in Environmental Impact Statements';
- Environmental Protection Agency (2003) 'Advice notes on current practice (in the preparation of Environmental Impact Statements)';
- Environmental Protection Agency (2022) 'Guidelines on the information to be contained in Environmental Impact Assessment Reports (EIAR)';
- Department of Arts, Heritage, Gaeltacht and the Islands (DAHGI) (1999) 'Frameworks and Principles for the Protection of the Archaeological Heritage';
- Department of the Environment, Heritage and Local Government (2004) 'Architectural Heritage Guidelines';
- National Roads Authority (2005) 'Guidelines for the Assessment of Architectural Heritage Impacts of National Road Schemes'; and
- National Roads Authority (2005) 'Guidelines for the Assessment of Archaeological Heritage Impacts of National Road Schemes'.

This assessment comprehensively assesses the Proposed Development to determine and present mitigation measures for the potential impacts to the archaeological, architectural, and cultural landscape that could arise from the Proposed Development during the construction, operational and decommissioning phases.

14.2.1 Desktop Study

This assessment is based on a desktop study of a number of documentary and cartographic sources. The desktop study was further augmented by an examination of aerial photography as well as a field survey. The main sources last consulted during October 2023 and used in completing the desktop study were:

- Sites and Monuments Record (SMR) and Record of Monuments and Places (RMP) for County Cork and County Kerry;
- Historic editions of the Ordnance Survey of Ireland maps (See Section 14.3.4);
- National Inventory of Architectural Heritage;
- Excavation Bulletins Database ;
- County Kerry Development Plan (2022-2028);
- Cork County Development Plan 2022-2028);
- Various published sources for local history;
- Ordnance Survey Name books and Letters; and
- Aerial Photographs.

14.2.2 Study Area

The study area for this assessment has been defined in respect of the potential physical impact, as well as impact on setting, that the proposed Development may have on sites of cultural heritage significance based on the Zone of Theoretical Visibility (ZTV) (Figures 6-2a & b and 6-3a & b).

Furthermore, the wider landscape extending for 10km in all directions from the Proposed Development Site was reviewed to determine the presence of any nationally significant cultural heritage assets with heightened visual sensitivities, i.e., National Monuments in State Care and World Heritage sites (including tentative sites).

Based on the ZTV and field inspections, it was determined that areas greater than 5km away from the Proposed Development Site would have only intermittent views and therefore effects on these CH receptors would be negligible owing to the distance.

Taking these factors into account the study area has been defined as per Table 14-1.

Table 14-1: Study area definitions

Subject	Within 5 km of Proposed Development Site
National Monuments	Within approx.10 km Proposed Development Site
Recorded archaeological monuments (RMPs)	Within approx. 5 km Proposed Development Site
Protected Structures and/or their curtilage	Within approx. 5 km Proposed Development Site
Architectural Conservation Areas (ACAS)	Within approx. 5 km of Proposed Development Site
Structures recorded in the NIAH	Within Proposed Development Site
Unregistered features of cultural heritage	Within Proposed Development Site
Townland boundaries	Within Proposed Development Site
Areas of archaeological potential	Within respective townland incorporated by the Proposed Development Site and adjoining townlands
Previous Excavations	Within respective townland incorporated by the Proposed Development Site

Subject	Within 5 km of Proposed Development Site
Topographical files	Within respective townlands incorporated by the Proposed Development Site

The UNESCO definition of Cultural Heritage has been used throughout this chapter to define Cultural Heritage Receptors (CH Receptors):

“Cultural heritage (CH) includes artefacts, monuments, groups of buildings, sites, and museums that have a diversity of values including symbolic, historic, artistic, aesthetic, ethnological or anthropological, scientific and social significance. It includes tangible heritage (movable, immobile and underwater), intangible cultural heritage (ICH) embedded into cultural, and natural heritage artefacts, sites or monuments. The definition excludes ICH related to other cultural domains such as festivals, celebration etc. It includes industrial heritage and cave paintings.” (UNESCO 2009).

14.2.3 Field Inspection

A walkover survey of the Proposed Development Site was undertaken by Dr. Enda O’Flaherty and Ewelina Rondelez B.A. of Rubicon Heritage Services Ltd between the 10th and 13th of May 2021. An additional walkover survey of the delivery access track and proposed cabling route was undertaken by Dr. Enda O’Flaherty and Jonathan Millar B.A. of Rubicon Heritage on June 30th 2022.

This fieldwork was supervised Dr. Enda O’Flaherty (B.A., H-Dip, PhD) of Rubicon Heritage Services Ltd. He has worked as a professional archaeologist since 2006. He completed his B.A. (Honours) in Heritage Studies at the Atlantic Technical University in 2005. He completed his H-Dip in Archaeology in 2009 and his PhD in Archaeology in 2020, both at the National University of Ireland, Galway.

Jonathan Millar received his B.A. in Archaeology from the University of York, England in 1998 and has worked as a professional archaeologist since that year.

Ewelina Rondelez received Master of Arts in Archaeology, First Class Honours Degree, from the University of Warsaw, Poland, in 2000 and has worked as a professional archaeologist since that year.

The primary purpose of a field inspection was to assess local topography in order to identify any potential low-visibility archaeological and/or historical sites that are not currently recorded and which may be impacted upon negatively by the Proposed Development.

It was also the purpose of the field inspection to survey any known monuments or sites and to consider the relationship between them and the surrounding landscape, all of which need to be considered during the assessment process.

The methodology used during the field inspection involved recording the present land use as well as the existing topography for the entire area comprising the Proposed Development.

A photographic record and written description was compiled for any known and / or potential sites of archaeological, architectural and / or cultural significance. In addition, a Global Positioning System (GPS) waypoint was taken for each identified site of said significance. This work was carried out in accordance with Historic England guidelines (2006).

14.2.4 Methodology used for assessing baseline value of sites

In order to categorise the baseline environment in a systemised manner, 'baseline values' have been assigned to each identified site of cultural heritage significance and/or potential within the study area. The baseline value of a site is determined with reference to the 'importance' and 'sensitivity' of the site.

In accordance with TII Guidelines, (NRA 2005) the importance of a site is determined based on the following criteria: legal status, condition, historical associations, amenity value, ritual value, specimen value, group value and rarity. The sensitivity of a site is determined based on its susceptibility to physical impact, as well as susceptibility to impact on setting.

It should be noted that the National Monuments Act 1930-2014 (as amended) does not differentiate between recorded archaeological sites on the basis of relative importance or sensitivity.

In addition, the Planning and Development Act 2000 (as amended) does not differentiate between Protected Structures or Areas of Architectural Conservation on the basis of relative importance or sensitivity either.

Consequently, professional judgement has been exercised to rate these features based on their perceived importance and sensitivity in relation to physical impacts and impacts on setting.

Note: 'All other areas' collectively refers to the areas within the Proposed Development Site that do not contain or comprise features of cultural heritage significance.

Taking the above factors into consideration, the criteria that have been defined are provided in Table 14-2.

Table 14-2: Baseline value of sites

Subject	Baseline Value
<ul style="list-style-type: none"> Recorded Archaeological Monuments Protected Structures Architectural Conservation Areas (ACAs) Shipwrecks known to be more than 100 years old or whose date is uncertain 	Very High
<ul style="list-style-type: none"> Sites listed in the NIAH that are not Protected Structures Shipwrecks that are known to be less than 100 years old. Unregistered built heritage sites that comprise extant remains which are in good condition and/or which are regarded as constituting significant cultural heritage features Unrecorded features of archaeological potential 	High
<ul style="list-style-type: none"> Unregistered built heritage sites that comprise extant remains which are in poor condition Unregistered cultural heritage sites (not including built heritage sites) that comprise extant remains Townland boundaries that comprise extant remains Marshy/wetland areas 	Medium/High
<ul style="list-style-type: none"> Unregistered cultural heritage sites for which there are no extant remains but where there is potential for associated subsurface evidence Townland boundaries for which there are no extant remains 	Medium/Low

Subject	Baseline Value
<ul style="list-style-type: none"> Unregistered cultural heritage sites for which there are no extant remains and where there is little or no potential for associated subsurface evidence 	Low

14.2.5 Type of impact

Table 14-3 lists the type of impacts that a Proposed Development may have on the cultural heritage resource:

Table 14-3: Types of Impact

Types of Impact	Definition
Direct	Direct impacts arise where an archaeological, architectural and/or cultural heritage feature or site is physically located within the footprint of the Proposed Development, or its associated physical impact zone, whereby the removal of part, or all of the feature or site is thus required.
Indirect	Indirect impacts arise when an archaeological, architectural or cultural heritage feature is not located within the footprint of the Proposed Development, or its associated physical impact zone, and thus is not impacted directly. Such an impact could include impact on setting or impact on the zone of archaeological potential of site whereby the actual site itself is not physically affected.
Cumulative	The addition of many impacts to create a large, significant impact.
Undeterminable	Whereby the full consequence that the Proposed Development may have on the cultural heritage resource is not known
Residual	The degree of environmental change that will occur after the proposed mitigation measures have taken effect.

14.2.6 Assessing physical impacts

The methodology used to assess the magnitude of potential pre-mitigation impacts, as well as residual impacts, of the Proposed Development on the baseline environment is presented in Table 14-4.

Table 14-4: Criteria used for rating magnitude of impacts

Impact Magnitude	Criteria
Profound	<ul style="list-style-type: none"> Applies where mitigation would be unlikely to remove adverse effects. Reserved for adverse, negative effects only. These effects arise where an archaeology site is completely and irreversibly destroyed. An impact that obliterates the architectural heritage of a structure or feature of national or international importance. These effects arise where an architectural structure or feature is completely and irreversibly destroyed by the Proposed Development. Mitigation is unlikely to remove adverse effects.
Significant	<ul style="list-style-type: none"> An impact which, by its magnitude, duration or intensity, alters an important aspect of the environment. An impact like this would be where part of a site would be permanently impacted upon, leading to a loss of character, integrity and data about an archaeological feature/site. An impact that by its magnitude, duration or intensity alters the character and/or the setting of the architectural heritage. These effects arise where an aspect or aspects of the architectural heritage is/are permanently impacted upon leading to a loss of character and integrity in the architectural structure or feature. Appropriate mitigate is likely to reduce the impact

Impact Magnitude	Criteria
	<ul style="list-style-type: none"> A beneficial or positive effect that permanently enhances or restores the character and/or setting of a feature of archaeological or cultural heritage significance in a clearly noticeable manner.
Moderate	<ul style="list-style-type: none"> A medium impact arises where a change to a site/monument is proposed which though noticeable, is not such that the archaeological integrity of the site is compromised, and which is reversible. This arises where an archaeological feature can be incorporated into a modern-day development without damage and that all procedures used to facilitate this are reversible. A medium impact to a site/monument may also arise when a site is fully or partly excavated under license and all recovered data is preserved by record. An impact that results in a change to the architectural heritage which, although noticeable is not such that alters the integrity of the heritage. The change is likely to be consistent with existing and emerging trends. Impacts are probably reversible and may be of relatively short duration. Appropriate mitigation is very likely to reduce the impact. A beneficial or positive effect that results in partial or temporary enhancement of the character and/or setting of a feature of archaeological or cultural heritage significance in a clearly noticeable manner.
Slight	<ul style="list-style-type: none"> An impact which causes changes in the character of the environment, such as visual impact, which are not high or very high and do not directly impact or affect an archaeological feature or monument. An impact that causes some minor change in the character of architectural heritage of local or regional importance without affecting its integrity or sensitivities. Although noticeable, the effects do not directly impact on the architectural structure or feature. Impacts are reversible and of relatively short duration. Appropriate mitigation will reduce the impact. A beneficial or positive effect that causes some minor or temporary enhancement of the character of an architectural heritage significance which, although positive, is unlikely to be readily noticeable.
Not Significant	<ul style="list-style-type: none"> An impact on archaeological features or monument capable of measurement but without noticeable consequences. An impact on architectural heritage of local importance that is capable of measurement but without noticeable consequences.
Imperceptible	<ul style="list-style-type: none"> An impact on archaeological features or monument not measurable and has no noticeable consequences An impact on architectural heritage of local importance that is not measurable and has no noticeable consequences.

14.2.7 Assessing impacts on setting

The definition of setting follows the guidance set by English Heritage as they have developed a range of comprehensive guidance on this subject specific to heritage assets (English Heritage 2005; 2008).

Hence setting is not simply the visual envelope of the asset in question. Rather, it is those parts of the asset's surroundings that are relevant to the significance of the asset and the appreciation thereof, and in which a heritage asset is experienced.

In most instances setting will relate to the historical value of the asset, where an appreciable relationship between the asset and an element of its surroundings helps the visitor understand and appreciate the asset.

This may be in terms of a physical relationship, such as between a castle and the natural rise that it occupies, or a more distant visual relationship, such as a designed vista or the view from.

For example, one ringfort to another. The former is referred to as immediate setting and the latter as landscape setting. Many assets will only have an immediate setting.

Some assets will have aesthetic value that relates to the surrounding landscape, such as in the case of a designed view incorporating a distant hill, or that relates to the contribution the asset makes to the local landscape, for example a church spire providing a focal point in a view down a valley.

English Heritage has provided a list of factors to be considered when assessing impacts upon setting. These are broad factors and have been taken into consideration when assessing magnitude of impact and sensitivity. They are summarised in Table 14-5.

Table 14-5: Factors to be considered when assessing impacts upon setting (English Heritage 2005)

Factor	Discussion
Visual dominance	Where an historic feature (such as a hilltop monument or fortification, a church spire, or a plantation belonging to a designed landscape) is the most visually dominant feature in the surrounding landscape, adjacent construction of the Proposed Development may be inappropriate.
Scale	The extent of a Proposed Development and the number, density and disposition of its associated elements will also contribute to its visual impact.
Intervisibility	Certain archaeological or historic landscape features were intended to be seen from other historic sites. Construction of a Proposed Development should respect this intervisibility.
Vistas and sight-lines	Designed landscapes invariably involve key vistas, prospects, panoramas and sight-lines, or the use of topography to add drama. Location of a Proposed Development within key views, which may often extend beyond any designated area, should be avoided.
Movement, sound or light impacts	The movement associated with a Proposed Development may be a significant issue in certain historic settings. Adequate distance should always be provided between important historic sites and Proposed Developments to avoid the site being overshadowed or affected by noise.
Unaltered settings	The setting of some historic sites may be little changed from the period when the site was first constructed, used or abandoned. Largely unaltered settings for certain types of sites, particularly more ancient sites, may be rare survivals and especially vulnerable to modern intrusions such as wind turbines. This may be a particular issue in certain upland areas.

The following are guides to the assessment of magnitude of impact on setting:

- *Obstruction of or distraction from key views.* Some assets have been sited or designed with specific views in mind, such as the view from a country house with designed vistas. The obstruction or cluttering of such views would reduce the extent to which the asset could be understood and appreciated by the visitor. Developments outside key views may distract from them and make them difficult to appreciate on account of their prominence and movement. In such instances the magnitude is likely to be greatest where views have a particular focus or a strong

aesthetic character. Sympathetic development may improve key views by removing features that obstruct or distract from key views and hence preserve or enhance the importance of the asset.

- *Changes in prominence.* Some assets are deliberately placed in prominent locations in order to be prominent in the surrounding landscape, for example prehistoric cairns are often placed to be silhouetted against the sky and churches in some areas are deliberately placed on ridges in order to be highly visible. Developments can reduce such prominence and therefore reduce the extent to which such sites can be appreciated or the contribution that they make to the local landscape. Similarly, sympathetic development can enhance the setting of such sites by, for example, removing modern forestry that would otherwise compromise the setting of a cairn that had been placed on a skyline.
- *Changes in landscape character.* A particular landuse regime may be essential to the appreciation of an asset's function, for instance the fields surrounding an Improvement period farmstead are inextricably linked to its appreciation. Changes in land use can leave the asset isolated and reduce its value. In some instances, assets will have aesthetic value or a sense of place that is tied to the surrounding landscape character. Conversely, sympathetic development may restore or preserve the relevant landuse and hence preserve or enhance the relevant value of the asset.
- *Duration of impact.* Impacts that are long term or permanent are generally of greater magnitude than those that are short term.

Readily reversible impacts are generally of lesser magnitude than those that cannot be reversed. Impacts upon the defined setting will be of greater magnitude than those that affect unrelated elements of the asset's surroundings or incidental views to or from an asset that are unrelated to the appreciation of its value. The magnitude of impacts can be rated from Negligible to Major using a similar scale to that for physical impacts.

14.2.8 Significance Criteria

The significance level of a construction or operation impact on a feature is assessed by combining the magnitude of the impact and baseline value of the feature. The matrix in Table 14-6 provides a guide to decision-making, but it is not a substitute for professional judgement and interpretation, particularly where the baseline value or impact magnitude levels are not clear or are borderline between categories.

The permanence of the effects are also taken into account, with irreversible effects being more significant while temporary or reversible changes are likely to be less significant.

The levels of impact for architectural heritage used was based on the levels stated in the EPA Advice Notes on Current Practice in the Preparation of Environmental Impact Assessments and are defined in the TI Guidelines as follows:

- **Profound negative:** an impact that obliterates the architectural heritage of a structure or feature of national or international importance. These effects arise where an architectural structure or feature is completely and irreversibly destroyed by the Proposed Development. Mitigation is unlikely to remove adverse effects;
- **Significant negative:** an impact that, by its magnitude, duration or intensity alters the character and/ or setting of the architectural heritage. These effects arise where an aspect or aspects of the architectural heritage is/ are permanently impacted upon

leading to a loss of character and integrity in the architectural structure or feature. Appropriate mitigation is likely to reduce the impact;

- **Moderate negative:** an impact that results in a change to the architectural heritage which, although noticeable, is not such that it alters the integrity of the heritage. The change is likely to be consistent with existing and emerging trends. Impacts are probably reversible and may be of relatively short duration. Appropriate mitigation is very likely to reduce the impact;
- **Slight negative:** an impact that causes some minor change in the character of architectural heritage of local or regional importance without affecting its integrity or sensitivities. Although noticeable, the effects do not directly impact on the architectural structure or feature. Impacts are reversible and of relatively short duration. Appropriate mitigation will reduce the impact;
- **Not Significant:** An impact on archaeological features or monument capable of measurement but without noticeable consequences, or An impact on architectural heritage of local importance that is capable of measure merit but without noticeable consequences; and
- **Imperceptible negative:** an impact on architectural heritage of local importance that is capable of measurement but without noticeable consequences.

Table 14-6: Criteria for assessing significance level of impacts

Magnitude of Impact	Baseline Value				
	Very High	High	Medium / High	Medium / Low	Low
Profound	Profound negative	Significant negative:	Moderate negative	Slight negative	Imperceptible negative
Significant	Significant negative:	Significant negative:	Moderate negative	Slight negative	Slight negative
Moderate	Moderate negative	Moderate negative	Slight negative	Slight negative	Imperceptible negative
Slight	Moderate negative	Slight negative	Slight negative	Imperceptible negative	Imperceptible negative
Not significant	Slight negative	Slight negative	Imperceptible negative	Imperceptible negative	Imperceptible negative
Imperceptible	Imperceptible	Imperceptible	Imperceptible	Imperceptible	Imperceptible

Positive significance level of a construction or operation impact on a feature may also be expressed.

- **Significant positive:** a beneficial effect that permanently enhances or restores the character and/ or setting of the architectural heritage in a clearly noticeable manner;
- **Moderate positive:** a beneficial effect that results in partial or temporary enhancement of the character and/ or setting of the architectural heritage and which is noticeable and consistent with existing and emerging trends;
- **Slight positive:** a beneficial effect that causes some minor or temporary enhancement of the character of architectural heritage or local or regional importance which, although positive, is unlikely to be readily noticeable; and

- **Imperceptible positive:** a beneficial effect on architectural heritage of local importance that is capable of measurement but without noticeable consequences.

14.2.9 Limitations of this EIAR Chapter

There were no significant limitations or restrictions encountered during the compilation of this EIAR chapter.

14.2.10 Legislation, planning policy and guidance

This section presents a review of the applicable legislation; national, strategic and local planning policies and guidance, and develops that information with reference to policy objectives set out in the County Kerry Development Plan (2022-2028) and the Cork County Development Plan 2022-2028 (See Technical Appendix 14-3 County Development Plans for a detailed overview of relevant policies).

EIA Legislation

EIA Directive 85/337/EEC as amended by 97/11/EC, 2003/35/EC and 2009/31/EC requires that certain developments be assessed for likely environmental effects before planning permission can be granted. This original directive and its amendments were consolidated in EIA Directive 2011/92/EU and further amended 2014/52/EU.

Directive 2014/52/EU that among other factors, information is to be provided on 'cultural heritage, including architectural and archaeological aspects' (Annex IV, Section 3)

Each of these assets is addressed within this assessment Chapter.

The Granada Convention and Architectural Heritage (NIAH)

In 1997 Ireland ratified the Granada Convention on architectural heritage. This provided the basis for a national commitment to the protection of the architectural heritage throughout the country.

The Council of Europe, in Article 2 of the 1985 Convention for the Protection of the Architectural Heritage of Europe (Granada Convention), states that 'for the purpose of precise identification of the monuments, groups of structures and sites to be protected, each member State will undertake to maintain inventories of that architectural heritage'.

The Granada Convention emphasises the importance of inventories in underpinning conservation policies.

The National Inventory of Architectural Heritage (NIAH) was established in 1990 to fulfil Ireland's obligations under the Granada Convention, through the establishment and maintenance of a central record, documenting and evaluating the architectural heritage of Ireland.

Article 1 of the Granada Convention establishes the parameters of this work by defining 'architectural heritage' under three broad categories of Monument, Groups of Buildings, and Sites:

- **Monument:** all buildings and structures of conspicuous historical, archaeological, artistic, scientific, social or technical interest, including their fixtures and fittings;

- Group of buildings: homogeneous groups of urban or rural buildings conspicuous for their historical, archaeological, artistic, scientific, social or technical interest, which are sufficiently coherent to form topographically definable units; and
- Sites: the combined works of man and nature, being areas which are partially built upon and sufficiently distinctive and homogenous to be topographically definable, and are of conspicuous historical, archaeological, artistic, scientific, social or technical interest.

The Council of Europe's definition of architectural heritage allows for the inclusion of structures, groups of structures and sites which are considered to be of significance in their own right, or which are of significance in their local context and environment. The NIAH believes it is important to consider the architectural heritage as encompassing a wide variety of structures and sites.

Archaeological Monuments/Sites

Archaeological heritage is protected primarily under the National Monuments Acts 1930-2014 (as amended). Section 2 of the 1930 National Monuments Act defines the word 'monument' as including:

"...any artificial or partly artificial building, structure, or erection whether above or below the surface of the ground and whether affixed or not affixed to the ground and any cave, stone, or other natural product whether forming part of or attached to or not attached to the ground which has been artificially carved, sculptured or worked upon or which (where it does not form part of the ground) appears to have been purposely put or arranged in position and any prehistoric or ancient tomb, grave or burial deposit, but does not include any building which is for the time being habitually used for ecclesiastical purposes".

Under the 1994 Act, provision was made for a Record of Monuments & Places (RMP). The RMP is a revised set of SMR (Sites and Monuments Record) maps, on which newly discovered sites have been added and locations which proved not to be of antiquity have been de-listed by the National Monuments Service.

In effect, the National Monuments Acts 1930-2014 (as amended) provide a statutory basis for:

- Protection of sites and monuments (RMPs);
- Sites with Preservation Orders;
- Ownership and Guardianship of National Monuments;
- Register of Historic Monuments (pre-dating 1700AD);
- Licensing of archaeological excavations;
- Licensing of Detection Devices;
- Protection of archaeological objects; and
- Protection of wrecks and underwater heritage (more than 100 years old).

In relation to development at or in the vicinity of a recorded archaeological monument, Section 12 (3) of the National Monuments (Amendment) Act 1994 states:

"When the owner or occupier (not being the Commissioners) of a monument or place which has been recorded [in the Record of Monuments and Places] or any person proposes to carry out, or to cause or permit the carrying out of any work at or in relation to such monument or place, he shall give notice in writing

of his proposal to carry out the work to the Commissioners and shall not, except in the case of urgent necessity and with the consent of the Commissioners, commence the work for a period of two months after having given the notice."

Archaeological artefacts

Section 2 of the 1930 National Monuments Act (amended) defines an archaeological object as (in summary) any chattel in a manufactured or partly manufactured state or an unmanufactured state but with an archaeological or historical association. This includes ancient human, animal or plant remains.

Section 9 (1) of the National Monuments (Amendment) Act 1994 states that any such artefact recovered during archaeological investigations should be taken into possession by the licensed archaeological director and held on behalf of the state until such a time as they are deposited accordingly subsequent to consultation with the National Museum of Ireland.

Kerry County Development Plan (2022-2028)

The relevant sections addressing archaeological, architectural and cultural heritage in the County Development Plans for Co. Kerry and Co. Cork (2022-2028) are included in Technical Appendix 14-3. The objectives of each administrative body in relation to cultural heritage are outlined in detail in these plans.

Due consideration has been taken of the policies and objectives of each local authority in the design of the Proposed Development to avoid, reduce or offset any impacts to the archaeological, architectural and cultural landscape in accordance with each authorities development plan. Due consideration has also been taken of the policies and objectives of each authority in the compilation of this report.

Kerry County Development Plan (2022-2028) Volume I Chapter 8 of the Kerry County Development Plan 2022-2028 incorporates aims, objectives, policies, and guidelines to provide for the proper planning and sustainable management of the archaeological, architectural and cultural landscape of the county.

Specific to the Proposed Development are sections 8.3.1 and 8.3.2 which address Recorded Archaeological Monuments and Archaeological Landscapes.

Objectives KCDP 8-22 - KCDP 8-31 are of specific importance, outlining the objectives of the Council with regard to the care and preservation of archaeological monuments and landscapes, and due consideration has been taken in of these policies and objectives in this report. S

ections 8.4.1 to 8.3.5, as well as Section 8.2 outline the objectives of the Council as to the preservation and care of built and cultural heritage, with objectives KCDP 8-23 to KCDP 8-48 being of specific importance.

The County Development Plan is a spatial planning framework that gives effect to the delivery of sustainable and planned economic and social development in a manner consistent with higher level plans and strategies such as Project Ireland, 2040 National Planning Framework Ireland and the Regional Spatial and Economic Strategy for the Southern Region (RSES), 2020.

Essentially it establishes a broad framework for the way in which our economy, society, environment, and the use of land should evolve over its lifetime.

The Vision of the Kerry County Development Plan 2022-2028 is as follows: -

"The Vision is to provide for the development of County Kerry as an attractive, competitive and sustainable place to live, visit and do business, and where the quality of employment and educational opportunities, natural and built environment, cultural experiences and the strength and viability of its rural and urban communities are to the highest standards"

Cork County Development Plan (2022-2028)

Cork County Development Plan (2022-2028): Volume 1, Chapter 16 as well as Chapters 1 and 2 of The Cork County Development Plan 2022-2028 incorporates aims, objectives, policies, and guidelines to provide for the proper planning and sustainable development of County Cork as it pertains to the archaeological, architectural and cultural landscape of the county.

Specific to the Proposed Development are sections 16.2 to 16.4 which outline the specific objectives of the Council as to the preservation of, and care for the archaeological, architectural and cultural heritage. Due consideration of these sections has been taken in the design of the Proposed Development, and in the compilation of this report.

This Plan sets out an overall strategy for the proper planning and sustainable development of Cork County. Protection of heritage not only has environmental benefits and benefits for the quality of life of the people of Cork, but it also brings economic benefits to the County by providing attractive towns, villages and countryside for visitors to enjoy.

The National Planning Framework is the Government's high-level strategic plan for shaping the future growth and development of the country up to 2040. It includes a strong focus on enhanced amenities and heritage by highlighting how our built, cultural and natural heritage has intrinsic value in defining the character of urban and rural areas and adding to their liveability, attractiveness and sense of place.

It also emphasises how Ireland's built heritage assets are a non-renewable resource that merit being nurtured in a manner appropriate to their significance as an aid to understanding the past, contributing to community well-being and quality of life as well as regional economic development.

14.2.11 Consultation

A programme of consultation was undertaken on an Environmental Impact Assessment Scoping Report prepared by Atmos Consulting Limited ('Atmos') in relation to the Proposed Development. See Chapter 2 EIA Approach and Methodology for further detail.

Three responses had implications for aspects of the cultural heritage and are outlined in Table 14-7.

Table 14-7: Responses to Consultation process

Consultee	Response Summary	Where addressed within this Report
Kerry County Council - County Archaeologist	Impact of protected archaeological landscape to be assessed.	Addressed in 14.4.4

Consultee	Response Summary	Where addressed within this Report
Kerry County Council - Planning	<ul style="list-style-type: none"> • Outside area zoned as 'Open to Consideration' in the Renewable Energy Strategy • Within an area identified as a secondary Special Amenity Area 	Addressed in 14.4.4
Cork County Council	<ul style="list-style-type: none"> • Confirmed approach is acceptable • Preference for grid connection to be underground • Suggested reference is made to Judicial Review overturning permission for Derryadd Windfarm (SID - APB) [2020 No.5571] 	Addressed in 14.4.3

14.3 Baseline Conditions

14.3.1 Topographical Description

The Proposed Development Site topography typically falls from south to north and currently consists of coniferous plantation. Existing forestry tracks traverse the Proposed Development Site. Existing wind farms are present to the north, south and east of the Proposed Development Site.

The River Clydagh, a tributary of the River Flesk, is located along the northern boundary of the Proposed Development Site. Additionally, there are several minor watercourses throughout the Proposed Development Site.

Analysis of historic mapping (see below) suggests that the Proposed Development Site was utilised as primarily upland grazing with vernacular settlement confined to the banks of the Clydagh River into the second quarter of the 20th century at least. The historic mapping shows little subdivision of lands across the Proposed Development Site.

Small 'in-field' enclosure of lands is evident along the Clydagh River to the north, with a number of vernacular structures marked in this area on the First Edition 6-inch Ordnance Survey map. Six streams flow downward through the Proposed Development Site to the Clydagh River, with vernacular settlement clustered around these stream confluences.

14.3.2 Receiving Environment

The Proposed Development consists of 17 turbines and associated infrastructure (substation, grid connection route, met mast) and other enabling works (borrow pits, peat storage areas, etc.) as shown in Figure 1-2. The baseline conditions of each turbine location, the associated hardstanding areas, assembly areas and turning heads are outlined in the following paragraphs.

The Proposed Development site predominantly comprises commercial forestry lands with associated infrastructure, and as such, the area was already greatly disturbed when inspected. Some locations were inaccessible due to the level of disturbance, and these are highlighted in each case. Refer to Figures 14-1 and 14-3 when viewing Table 14-8.

Table 14-8: Turbine locations and setting

Turbine No.	Plate ref:	Townland	Landcover	Features identified during inspection	ITM_E	ITM_N
1	Plate 1	Cummeennabuddoge	Mature forestry	The proposed location for Turbine 1 is located within the townland of Cummeennabuddoge on the northern side of Mullach An Ois. The lands presently comprise mature forestry sloping gently downward to the north. The ground comprises blanket peat that has been heavily disturbed by commercial forestry activity. The proposed location for Turbine 1 was inspected on May 11th 2021. No features of archaeological, architectural or cultural significance were identified during the field inspection.	521889	583680
2	Plate 2	Cummeennabuddoge	Cleared forestry	The proposed location for Turbine 2 is located within the townland of Cummeennabuddoge on the northern side of Mullach An Ois. The lands presently comprise cleared forestry sloping gently downward to the north. The ground comprises blanket peat that has been heavily disturbed by commercial forestry activity and the felling process. The proposed location for Turbine 2 was inspected on May 11th 2021. No features of archaeological, architectural or cultural significance were identified during the field inspection.	521683	584083
3	Plate 3	Cummeennabuddoge	Mature forestry	The proposed location for Turbine 3 is located within the townland of Cummeennabuddoge on the northern side of Mullach An Ois. The lands presently comprise mature forestry sloping gently downward to the north. The ground comprises blanket peat that has been heavily disturbed by commercial forestry activity. The proposed location for Turbine 3 was inspected on May 11th 2021. No features of archaeological, architectural or cultural significance were identified during the field inspection.	521274	583211
4	Plate 4	Cummeennabuddoge	Mature forestry	The proposed location for Turbine 4 is located within the townland of Cummeennabuddoge on the northern side of Mullach An Ois. The lands presently comprise mature forestry sloping gently downward to the north. The ground comprises	521147	583649

Turbine No.	Plate ref:	Townland	Landcover	Features identified during inspection	ITM_E	ITM_N
				blanket peat that has been heavily disturbed by commercial forestry activity. The proposed location for Turbine 4 was inspected on May 11th 2021. No features of archaeological , architectural or cultural significance were identified during the field inspection.		
5	Plate 5	Cummeennabuddoge	Young forestry (replanted)	The proposed location for Turbine 5 is located within the townland of Cummeennabuddoge on the northern side of Mullach An Ois. The lands presently comprise young forestry (replanted) sloping gently downward to the north. The ground comprises blanket peat that has been heavily disturbed by commercial forestry activity and the felling process. The proposed location for Turbine 5 was inspected on May 11th 2021. No features of archaeological, architectural or cultural significance were identified during the field inspection.	520995	584090
6	Plate 6	Clydaghroe	Cleared forestry	The proposed location for Turbine 6 is located within the townland of Cummeennabuddoge on the northern side of Mullach An Ois. The lands presently comprise cleared forestry sloping downward to the north. The ground comprises blanket peat that has been heavily disturbed by commercial forestry activity and the felling process. The proposed location for Turbine 6 was inspected on May 11th 2021. No features of archaeological , architectural or cultural significance were identified during the field inspection.	520438	583167
7	Plate 7	Cummeennabuddoge	Cleared forestry	The proposed location for Turbine 7 is located within the townland of Cummeennabuddoge on the northern side of Mullach An Ois. The lands presently comprise cleared forestry sloping gently downward to the north. The ground comprises blanket peat that has been heavily disturbed by commercial forestry activity and the felling process. The proposed location for Turbine 7 was inspected on May 11th 2021. No features of archaeological , architectural or cultural significance	520298	583550

Turbine No.	Plate ref:	Townland	Landcover	Features identified during inspection	ITM_E	ITM_N
				were identified during the field inspection.		
8	Plate 8	Cummeennabuddoge	Cleared forestry	The proposed location for Turbine 8 is located within the townland of Cummeennabuddoge on the northern side of Mullach An Ois, approximately 330m west of CH060 (UCH001) a vernacular building and associated field system, and 370 m south of CH066 (AAP-005) a tributary of the Clydagh River. The lands presently comprise cleared forestry sloping gently downward to the north. The ground comprises blanket peat that has been heavily disturbed by commercial forestry activity and the felling process. The proposed location for Turbine 8 was inspected on May 11th 2021. No features of archaeological , architectural or cultural significance were identified during the field inspection.	520357	584025
9	-	Clydaghroe	Mature forestry	The proposed location for Turbine 9 is located within the townland of Cummeennabuddoge on the northeast-facing side of Mullach An Ois. CH001 (KE077-001----) the site of remains of a rectangular hut is located approximately 650m to the west of the proposed location. The lands presently comprise mature forestry. This location was inaccessible, and no field inspection was undertaken. The site was inspected remotely through examination of the aerial photograph archive available through OSI and Google Earth, as well as an examination of all available historic mapping. No features of archaeological , architectural or cultural significance were identified from these sources.	519746	583004
10	Plate 9	Clydaghroe	Mature forestry	The proposed location for Turbine 10 is located within the townland of Clydaghroe on the northern side of Mullach An Ois. The lands presently comprise mature forestry sloping gently downward to the north. The ground comprises blanket peat that has been heavily disturbed by commercial forestry activity. The proposed location for Turbine 10	519578	583406

Turbine No.	Plate ref:	Townland	Landcover	Features identified during inspection	ITM_E	ITM_N
				was inspected on May 12th 2021. No features of archaeological , architectural or cultural significance were identified during the field inspection.		
11	-	Clydaghroe	Mature forestry	The proposed location for Turbine 11 is located within the townland of Clydaghroe on the northern side of An Leaca Bháin. The lands presently comprise mature forestry. This location was inaccessible, and no field inspection was undertaken. The site was inspected remotely through examination of the aerial photograph archive available through OSI and Google Earth, as well as an examination of all available historic mapping. No features of archaeological , architectural or cultural significance were identified from these sources..	519120	582715
12	-	Clydaghroe	Mature forestry	The proposed location for Turbine 12 is located within the townland of Clydaghroe on the northern side of An Leaca Bháin. The lands presently comprise mature forestry. This location was inaccessible, and no field inspection was undertaken. The site was inspected remotely through examination of the aerial photograph archive available through OSI and Google Earth, as well as an examination of all available historic mapping. No features of archaeological , architectural or cultural significance were identified from these sources.	518929	583085
13	Plate 10	Clydaghroe	Mature forestry	The proposed location for Turbine 13 is located within the townland of Clydaghroe on the northern side of Mullach An Ois, approximately 470 m east of CH060 (UCH001), a vernacular house and associated field system, and CH063 (AAP002) a tributary of the Clydagh River. The lands presently comprise mature forestry sloping gently downward to the north. The ground comprises blanket peat that has been heavily disturbed by commercial forestry activity. The proposed location for Turbine 13 was inspected on May 12th 2021. No features of archaeological , architectural or	518725	583485

Turbine No.	Plate ref:	Townland	Landcover	Features identified during inspection	ITM_E	ITM_N
				cultural significance were identified during the field inspection.		
14	Plate 11	Clydaghroe	Blanket Bog	The proposed location for Turbine 14 is located within the townland of Clydaghroe on an open area of land to the north the summit of Cnoc Na Morc. The lands presently comprise blanket bog sloping very gently downward to the north. The proposed site of Turbine 14 is located 400 m north of CH062 (AAP001) a small lake named 'Lough Gal' from whose shore a polished stone axehead was retrieved in 1963. The proposed location for Turbine 14 was inspected on May 12th 2021. No features of archaeological , architectural or cultural significance were identified during the field inspection.	518435	582355
15	Plate 12	Clydaghroe	Mature Forestry	The proposed location for Turbine 15 is located within the townland of Clydaghroe on the northern side of Cnoc Na Morc. The lands presently comprise mature forestry sloping gently downward to the north. The ground comprises blanket peat that has been heavily disturbed by commercial forestry activity. The proposed location for Turbine 15 was inspected on May 12th 2021. No features of archaeological , architectural or cultural significance were identified during the field inspection.	518273	582785
16	Plate 13	Clydaghroe	Mature forestry	The proposed location for Turbine 16 is located within the townland of Clydaghroe to the north the summit of Cnoc Na Morc. The lands presently comprise mature forestry sloping gently downward to the north. The ground comprises blanket peat that has been heavily disturbed by commercial forestry activity. The proposed location for Turbine 16 was inspected on May 12th 2021. No features of archaeological , architectural or cultural significance were identified during the field inspection.	517771	582024
17	Plate 14	Clydaghroe	Cleared forestry	The proposed location for Turbine 17 is located within the townland of Clydaghroe to the north the summit	517588	582429

Turbine No.	Plate ref:	Townland	Landcover	Features identified during inspection	ITM_E	ITM_N
				of Cnoc Na Morc. The lands presently cleared forestry sloping gently downward to the north. The ground comprises blanket peat that has been heavily disturbed by commercial forestry activity. The proposed location for Turbine 17 was inspected on May 12th 2021. No features of archaeological, architectural or cultural significance were identified during the field inspection.		

Site delivery route and access track

The proposed site delivery route from Ringaskiddy Port near Cork City to the Proposed Development Site shall comprise:

- Exit Ringaskiddy Port onto N28;
- At the roundabout, continue onto N28;
- At the roundabout, continue onto N28;
- At the roundabout, take the 2nd exit onto N28;
- Continue on N28, then take the slip road onto N40;
- Continue on N22;
- Merge onto the Macroom bypass and continue;
- Re-join the N22, leaving the Macroom bypass;
- Continue on N22 for 3.7 miles to lay by; and
- Turn right into lay by then right into Proposed Development Site.

The following shall be required to facilitate turbine delivery to the Proposed Development Site:

Table 14-9 Required works to facilitate delivery of materials to Proposed Development Site

Junction ID*	Townland	Temporary street furniture dismantling	Vegetation clearance	Temporary stone placement on splitter island/verge	Temporary Road surface modification
1	Loughbeg	X	X	X	
1B	Bamahely	X		X	
2	Ballintaggart & Bamahely	X	X	X	X
5	Shanbally	X	X	X	
13	Hilltown & Shannonpark	X	X	X	
38	Cummeenavrick		X	X	

*as per the Location ID in Appendix 8-1 Primary Route Assessment

Only at Junction 38, (to the west of the Proposed Development Site) will works potentially effect any CH site. Junction 38 is situated where a newly constructed forestry

road will meet a disused part of the former route of the N22. From this junction, the forestry road traverses the townlands of Cumeenavrick and Glashacormack eastwards to the Proposed Development Site (Plate 15).

A walkover survey of the delivery access track undertaken by Enda O'Flaherty and Jonathan Millar of Rubicon Heritage on June 30th 2022. No additional features of cultural heritage significance were identified during the walkover survey.

Three Cultural Heritage (CH) sites with no statutory protection were identified from cartographic sources within and immediately adjacent to the Proposed Development Site access.

CH078 (Plate 18) represents a vernacular field system with associated ruinous vernacular structure marked on the First Edition 6-inch Ordnance Survey sheet, with an adjacent possible ford/bridge (CH080) (Plate 17) also located at the southwestern end of the delivery access route.

CH079 (Plate 17) represents a riverine area of archaeological potential located immediately adjacent to the delivery access route. These CH sites are considered to be of local heritage value.

Grid Connection Cable route

The proposed grid connection cable route to Ballyvouskil substation is located to the east of the Proposed Development Site and traverses Cummeennabuddoge townland and part of the townland of Caherdowney.

Part of this route follows an existing forestry road (Plate 19) (to the west of the route), and a proportion of the route comprises offsite underground grid connection through upland blanket peat.

A walkover survey of the connection cable route was undertaken by Enda O'Flaherty and Jonathan Millar of Rubicon Heritage on June 30th 2022. During this walkover survey, a possible hut site (CH081) that has not been previously identified was noted c.120m south of the proposed cable route (Plate 20).

It comprised a site of unknown date located at the eastern terminus of a natural ridge; this possible circular structure measuring 1.8m in diameter comprised at most, three courses of dry-stone walling on its southern side, with the remainder of the structure having collapsed. the western end of the structure was formed by a rock outcrop.

Met Mast Location

One meteorological (met) mast is included as part of the Proposed Development. The met mast will be equipped with wind monitoring equipment. The mast will be located at 517649, 582342 (ITM) as shown on the site layout drawing in Figure 1-2.

The mast will be a free-standing metal lattice structure, 110m in height. A hardstanding 25m x 25m in area will be installed in association with the mast, accommodate the crane that will be used to erect it. The foundation will be 10m by 10m with a depth of 5m. Foundations are similar to those of the turbines.

A walkover survey of the proposed Met Mast Location was undertaken by Enda O'Flaherty of Rubicon Heritage on 13th of May 2021.

The site comprised mature forest and inaccessible. The site was inspected remotely through examination of the aerial photograph archive available through OSI and

Google Earth, as well as an examination of all available historic mapping. No features of archaeological or cultural significance were identified from these sources.

Temporary compound locations

Proposed Development consists of three temporary construction compounds. Two of these compounds will be located in the townland of Clydaghroe at ITM 517307, 58233 (Compound 1) and ITM 519966, 583820 (Plate 21) (Compound 2) (Plate 22). Both locations currently comprise mature forestry and were inspected on September 27th, 2022.

No features of cultural heritage significance were noted.

Compound 3 shall be located in the townland of Cummeennabuddoge at ITM 523076, 584488, (Plate 23) adjacent and the northeast of the proposed substation. The proposed site for Compound 3 was inspected on September 27th, 2022, and no features of cultural heritage significance were noted.

Substation location

The construction of 110kV permanent electrical substation including a control building with welfare facilities, all associated electrical plant and equipment, security fencing, all associated underground cabling, wastewater holding tank and all ancillary structures and works is required for the Proposed Development.

The footprint of the proposed onsite electricity substation compound will include a wind farm control building and the electrical components necessary to consolidate the electrical energy generated by each wind turbine and export that electricity from the wind farm to the national grid.

This substation will be located within the Proposed Development Site in the townland of Cummeennabuddoge at ITM 522959, 583409 (Plate 24). This location currently comprises a newly-planted young forestry plantation, on previously felled forestry lands. The proposed location was inspected on September 27th, 2022, and no features of cultural heritage significance were noted.

Onsite access tracks and on-site cabling connections, joint-bays, drainage, and permanent peat and spoil storage

The Proposed Development will require the construction and/or upgrade of a network of new and upgraded onsite access tracks between each turbine site, which will also accommodate the required on-site connection cabling to the on-site substation, along with associated joint bays. Figure 1-2 outline the layout of this new network.

There will be permanent placement of peat and spoil along sections of onsite access tracks where appropriate as part of the peat and spoil management plan for the site.

On site cabling will consist of array cables, predominantly rated at 33KV. The cables will be installed at a depth of approximately 1.3m via a trench approximately 0.5m width. These cables will be sited adjacent to the footprint of the proposed and existing access tracks and will be suitably marked on the surface using marker posts.

A Supervisory Control and Data Acquisition (SCADA) system will be installed to gather information from the turbines and to enable the turbines to be controlled from an external location. A fibre optic communications cable will be laid adjacent to the

power cables in the same cable trench to link the turbines to the SCADA system. This network will be located entirely within existing forestry lands which comprise newly-planted young forestry, mature forestry, and previously felled forestry lands.

Borrow pits, rock breaking and peat storage locations

The excavation of four borrow pits, and the establishment of six peat storage areas form part of the required groundworks for the Proposed Development. These are located within the Proposed Development Site in the townlands of Cummeennabuddoge and Clydaghroe (See Figures 14-2).

Hardcore materials will be extracted from the borrow pits principally by means of rock breaking with weaker rock extracted using a hydraulic excavator and a ripper. Where stronger rock is encountered and cannot be extracted using an excavator, then rock breaking equipment will be employed.

The locations currently comprise a mixture of mature forestry, young forestry plantation, and felled forestry. Each of the proposed sites were inspected on May 12th 2021, and no features of cultural heritage significance were noted.

14.3.3 Archaeological and historical context

There is abundant evidence for prehistoric settlement in Co. Kerry and Co. Cork, and this is evident in the study area.

The Mesolithic Period (8000BC-3900BC)

The Mesolithic Period (8000BC-3900BC) is the earliest time for which there is clear evidence for prehistoric activity in Ireland. During this period people hunted, foraged and gathered food and appear to have had a mobile lifestyle.

Flint scatters have been found in disturbed coastal (Guileen & Dunpower Head) and riverine (Blackwater valley) deposits in Co. Cork. However, the earliest evidence that has so far been discovered of human activity within the vicinity of the Proposed Development dates to the Neolithic Period (3900BC-2450BC).

Of the four different types of megalithic tomb the wedge tomb (Late Neolithic) is the most numerous type in Ireland and they are plentiful in Cork and Kerry. There are numerous examples in the wider landscape of the Proposed Development as shown in Figure 14-1. CH037 is recorded as a wedge tomb within the townland of Caherdowney (Co Cork).

This site, comprises a gallery, aligned east-west, surrounded by a closely-set outer walling with a short portico at west end. Three further examples are located in the townland of *Doire Na Sagart*;

- (CH044) comprised a large wedge-tomb with a large roofstone resting on upright slabs. The structure collapsed in the late 1960s when the side-stones shifted inwards (SMR file);
- (CH045) represents a ruined gallery (L 2.8m; Wth c. 1m) aligned northeast-southwest, represented by large side-stones to the north and south, and overlapped to the west by two lower slabs, and an inset backstone at the eastern end; and

- (CH046) represents the remains of a wedge-tomb exposed in the course of peat cutting on the upper southern slopes of Knockacommeen Mountain. The southern and eastern sides of the roofstone (2.5m x 1.6m; T 0.17m) and part of the southern side are exposed in the cutaway bog face. It consists of a chamber (L 1.95; Wth 0.9m at the western end, narrowing slightly to 0.84m at the eastern end), and aligned east-west.

The Bronze Age (2200BC-700BC)

There is clear evidence for settlement from at least the early Bronze Age. The Bronze Age (2200BC-700BC) was marked by the widespread use of metal for the first time in Ireland. Evidence for settlement during the Bronze Age is relatively sparse.

However, a site thought to reveal of glimpse of domestic life at this time is the burnt mound. A common site, they are normally interpreted as temporary cooking sites, possibly used on a seasonal basis.

There are seven previously recorded burnt mounds within the Proposed Development Site, two of which have been excavated:

- (CH023) was located in the townland of Curracahill and was recorded a fulacht fiadh on Dan Healy's farm in 'small fieldeen, round 30 feet across, 3 feet over ground'. According to local information, the horseshoe-shaped mound removed c. 1983. Now no visible surface trace;
- (CH024) is also located in the townland of Curracahill. It was recorded as being located in pasture, on north side of stream in field known as "big meadow". Burnt material was noted for distance of 7 m in a field fence parallel to the stream; the depth of burnt material varies from 0.15m on north side of the fence to 1.2m on south side. It was recorded by Broker (1937, 14) as 'removed long since - traces there still';
- (CH030) is located in the townland of Curragh. It is recorded as being located in rough grazing, on the south bank of a stream. Burnt material was visible along stream bank; the mound was levelled c. 1980, according to local information;
- (CH031) is also located in the townland of Curragh. It is recorded as being in rough grazing, on the south bank of a stream, comprising a grass-covered spread of burnt material; with the mound also being levelled c. 1980, according to local information; and
- (CH033) represents another burnt mound located in the townland of Curragh. It is recorded as being in rough grazing, on a hillside and immediately south of coniferous plantation. It comprised a U-shaped setting of low stones (L 5m; Wth 4m) protruding from bog; open at the eastern side. According to local information, some mound material was removed when forestry firebreak was dug.

Two further burnt mound sites have been excavated in the locality in recent times, in the townland of Slievareagh;

- Excavation at Slievareagh 1, (E004903) as part of the N22 Baile Bhuirne-Macroon Road Scheme (Lot 1) Archaeological Consultancy Services Contract, recorded the remains of three overlapping burnt mounds, two associated troughs, one of which contained a degraded in-situ timber lining, a possible third trough, two post-holes,

three stake-holes and two stake-hole clusters, several of which contained degraded in-situ stakes; and

- Excavation at Slieveagh 2 (E004988), as part of the N22 Baile Bhuirne–Macroom Road Scheme (Lot 1) Archaeological Consultancy Services Contract, recorded the remains of two burnt mounds, A and B, with a trough and well associated with Mound A. There was no stratigraphic relationship between the two mounds making it impossible to determine which was the earlier. At present there is no clear function for the site, other than the use of hot-stone technology to heat water. It is hoped that post-excavation analysis will give further information.

Various types of stone circle were widely distributed in Ireland, although in the Cork region there is a large concentration of a style called the recumbent stone circle. There is one recorded example of this site type situated within the study area (CH036) in the townland of Ballyvouskill. It is located on cut-away bog, on the saddle between two hills at the north-eastern end of the Derrynasaggart Mountains.

A probable axial stone and four prostrate slabs survive. It's estimated main axis is aligned WNW-ESE. The circle is surrounded by fosse, c. 12m diameter from outer rim to outer rim.

Another familiar feature of the rural landscape, which may have its roots grounded in the Bronze Age, is the standing stone. There are two recorded standing stones or sites of standing stones within the study area, both in the townland of Slieveagh:

- (CH042) is located on the upper slopes of the Derrynasaggart Mountains on northwest side of the Bohill River valley; and
- (CH043) is located in rough grazing, on the east-facing slope.

Medieval period (AD 400–1540)

The early medieval documentary sources indicate a complex secular social system based on clientship during this period. Landowning commoners such as ócaire and bóaire were obligated to wealthy landowners (mruigfer), lords (flaith) and the king of a region with commoners (betaghs) bonded freemen (fuidirs) and slaves (cumal) lower down the scale but still required to pay tributes.

The social system was dependant on clientelism with rents and what amounted to taxes being paid with labour, food, and other commodities to the upper echelons and also to the church (Kelly 2000, 447).

By the twelfth century the distinction between ócaire and bóaire diminished suggesting a change in the social order (Kelly 2000, 428). The betagh class came to refer to a servile tenant (Kelly 2000, 428). Many of these wealthy landowners and landowning commoners inhabited ringforts

Ringforts are the most widespread and characteristic archaeological field monument in the Irish countryside. There are six known ringfort sites within the constraints study area;

- (CH025) is located in the townland of Adrivale in pasture, on an east-facing slope and comprises a slightly raised circular area (38 m in diameter) defined by earthen bank which is stone-faced in parts. A possible souterrain (CO048-003002-; CH026) is located on the western side of the ringfort;

- (CH027) is located in the townland of Gneevies in pasture, on an east-facing slope overlooking the Comeenatrush River. It comprises a Circular area (21.6 m in diameter) defined by low earthen bank;
- (CH028) is also located in the townland of Gneevies in pasture, on a break in the south-facing slope. Locally known as site of fort, it incorporates low earthen bank which may be remains of ringfort bank;
- (CH032) is located in the townland of Curragh in pasture, on the lower northwestern slope of Ballyvouskill Mountain. It comprises a circular area (24 m in diameter) defined by the arc of low ruinous stone wall;
- (CH034) is located in the townland of Curragh and is recorded as an enclosure in rough grazing, on the western-facing slope. It is roughly circular area (14 m in diameter) enclosed by low earth and stone bank; and
- (CH041) is located in the townland of Slievareagh in rough grazing, on a break in the south-facing slope. It comprises a circular area (29 m in diameter) defined by partially grass-covered stone wall'.

Archaeological excavation has shown that the majority of ringforts were enclosed farmsteads, built in the early medieval period. Though not forts in the military sense, the earthworks acted as a defence against natural predators like wolves, as well as human predators.

Local warfare and cattle raiding were commonplace at this time. The construction of so many throughout the country, in a relatively short period (400–500 years), reflects on the stability and wealth of society at the time, and also its homogeneity.

As well as farming-related activities like corn-grinding and animal husbandry, the ringfort was home to a wide variety of craft industries, including spinning, weaving, metal- and glass-working.

Dwellings and outhouses were built on timber posts, with walls of wattle, mud or sods, which usually leave no trace above ground today. Excavation can trace the remains of these structures by revealing features like post-holes, stake-holes and sunken hearths (Power 1992, 131).

From the 6th century onwards the landscape of Ireland was dominated by scattered rural monasteries often surrounded by large circular or oval enclosures. Monastic communities were not attached to all religious sites and some of the smaller sites may have consisted of little more than a church and graveyard.

The village of Baile Bhuirne (located 6 km to the southeast of the Proposed Development Site) is associated with St. Gobnait, with the ecclesiastical site (CO053-034) founded by St. Gobnait located to the south of the village. However, there are no known ecclesiastical sites located within the study area for the Proposed Development.

A number of other enclosure sites are located within the study area that may potentially date to the medieval period:

- (CH002) is located in the townland of Knockabro in rough hill pasture, on a south-facing slope, overlooking the valley of the Clydagh River;
- (CH003) is also located in the townland of Knockabro in rough heather-clad hill pasture, on a south-facing slope overlooking the valley of the Clydagh River;
- (CH007) is again located in the townland of Knockabro in rough heather-clad hill pasture, on a S-facing slope overlooking the valley of the Clydagh River;

- (CH019) is again located in the townland of Knockabro in rough pasture, broken by rock outcrops, on a southwest-facing slope; and
- (CH021) is located in the townland of Glashcormick in a wooded area, on a river bank, on a north-facing slope in the valley of the Clydagh River.

The arrival of the Welsh Norman Knights headed by Robert de Clare, Earl of Pembroke (more commonly referred to as Strongbow) on the coast of Wexford 1169 marked the beginning of the Norman invasion of Ireland.

The Kingdom of Munster had been divided into two parts, north and south, under an agreement reached at Castletown Kinney by O'Connor of the Ard- Rí, or High King of Ireland. The Kings of Thomond (the O'Briens), ruled north Munster, whilst the Kings of Desmond, (the McCarthys) ruled south Munster.

During this period, a medieval settlement was probably established in the nearby town of Macroom, with the erection of a castle by the Carew family (CO071-049). This subsequently became the property of the McCarthy's.

Post-medieval period (1540–1900)

The late 18th and early 19th centuries saw the development of large, landed estates, which was a legacy of the English medieval landowners. However, the lands within the study area remained largely undeveloped during this time.

There are no sites recorded in the National Inventory of Architectural Heritage located within the study area.

Examination of the First Edition Ordnance Survey map shows that the area comprised only vernacular settlement and associated field systems that was largely confined to the Clydagh River Valley, with no roadway or access route into the valley.

One exception to this at the western end of the Clydagh Valley is 'Clydagh Lodge', located in the townland Glashacormick and marginally outside the study area. This is a reputed hunting lodge associated with the Kilcolman Demesne in Milltown, Co. Kerry.

The Paps- Archaeological Landscape 13

Within the Kerry County Development Plan 2022-2028 (KCDP), the area bounding the Proposed Development Site to the north has been identified as an Archaeological Landscape. According to the KCDP Paragraph 8.3.2:

"These landscapes are of regional, national and in some cases international significance and every effort should be made to ensure their protection and preservation. The nineteen landscapes identified are described in detail in Volume 3. These important landscapes are listed for special protection with special emphasis on objectives that protect the monuments and their landscape settings but also their visual aspect and monument inter-visibility."

Volume 3 of the KCDP notes the following in respect of this landscape:

"According to legend The Paps are the earthly manifestation of the breasts (Paps) of the Mother Goddess Anu and would have been venerated as such throughout prehistory. The cairns on the summits of the mountains are likely to contain small passage tombs, while other features on the summit are also likely of similar date. The slopes of the mountains and surrounding area are littered with hut sites, enclosures, megalithic structures, triple banked barrow etc. While

the locally important Christian focus at 'The City' in Gortnagane is likely to be of prehistoric origin also given the name Caher Crov Dearg and the likely association with the triadic mother goddess in the form Badb Catha or Raven of Battle. These sacred mountains and their surrounding archaeological, mythological and historic landscape are still venerated, albeit in Christian guise, to this day".

14.3.4 Cartographic evidence

Cartographic sources are important in tracing land use patterns within a study area as well as providing important information on the topography and archaeological potential of a region. A number of maps were consulted for these purposes as well as for information regarding unregistered sites considered to be of cultural heritage (CH) significance. These cartographic sources and their details are listed below.

Down Survey Map of Barony of Newcastle (1656-1658)

Given the absence of detail on the Down Survey map, only the approximate location of the Proposed Development can be identified. The townland of Clydaghroe is marked as 'Clydaghmore' on this map, with no further settlement features shown. A representative illustration of the Clydagh River is marked along with a symbolic representation of the upland/mountainous landscape.

1st Edition Ordnance Survey 6-inch series (1838)

This cartographic source shows the upland areas of the townlands of Clydaghroe and Cummeennabuddoge to be largely absent of subdivision. Vernacular settlement is concentrated along the banks of the Clydagh River forming the northern boundary of the Proposed Development Site.

Enclosure of small parcels of land is also concentrated along the banks of the river, with a vernacular settlement comprising five structures and adjacent field system located to the northwest of the townland of Clydaghroe.

Another single vernacular structure and adjacent field system is marked on this map in the townland of Cummeennabuddoge within 100m of the southern bank of the Clydagh River, with the associated field system shown to follow the line of a tributary stream.

Lough Gal and Lough Carricknamork are marked on the southern boundary of Clydaghroe/Coomnaclohy, with the landscape in between containing only a V-shaped field boundary to the west of the townland of Clydaghroe, and a north-south aligned field boundary to the east of the townland which follows the line of a tributary stream.

There are no field boundaries marked in the upland area of the townland of Cummeennabuddoge.

Ordnance Survey 25-inch series map (1910-11)

This cartographic source shows little change to the landscape within the Proposed Development Site since the 1st Edition Ordnance Survey 6-inch map.

Ordnance Survey Cassini 6-inch series (1930–40)

This cartographic source shows little change to the landscape within the Proposed Development Site since the 1st Edition Ordnance Survey 6-inch map, with settlement remaining clustered around the Clydagh River.

It is noteworthy that access to the Clydagh Valley remained limited, even at this late date, with the modern Clydagh Valley roadway only extending to the townland of Knocknabro. Access to the vernacular settlements marked on the Ordnance Survey Cassini 6-inch series was on foot only.

14.3.5 Toponymy of Townlands

The Irish landscape is divided into approximately 60,000 townlands and the system of landholding is unique in Western Europe for its scale and antiquity. Research into the names (toponymy) of these land units frequently provides information relating to the townland's archaeology, history, folklore, ownership, topography or land use.

Most placenames (including townland names) were anglicised by the time the Ordnance Survey began in the 1830s. However, despite some inaccuracies in translation, the Gaelic, Viking, Anglo-Norman and English origins of place names are generally recognisable.

A study of the townland names can provide information on aspects of cultural heritage including descriptions of the use of the landscape by man and the potential presence of archaeological or cultural heritage sites or features.

The Proposed Development Site extends through two townlands (Clydaghroe and Cummeennabuddoge), with 20 townlands in total being considered within the assessment area.

Table 14-10: Placename information for townlands incorporated by the study area

Townland	Irish Name	Derivation	Comments	Within Proposed development site
Clydaghroe	An Chlaoideach Rua	Red place	Natural landscape feature /References from at least the 17th century (marked on the Down Survey)	Yes
Cummeennabuddoge	Coimín na Bodóige	Hollow of the heifer	May refer to local booleying practise in the upland areas	Yes
Glashacormick	Glaise Chormaic	Cormac's streamlet	Natural landscape feature/historic familial association	Yes
Cummeenavrick	Coimín an Bhroic	Hollow of the badger	Natural landscape feature and faunal association	Yes
Derrynafinnia	Doire na Finne	Dery of the white cow	May refer to local booleying practise in the upland areas	No
Knocknabro	Cnoc na Bró	Hill of the quern	Reference to local historic/prehistoric settlement	No

Townland	Irish Name	Derivation	Comments	Within Proposed development site
Coomacheo	Com an Cheo	Vale of the mist or fog	Natural landscape feature	No
Kippagh	An Cheapach	Plot of land, tillage plot	Reference to local historic/prehistoric settlement	No
Curacahill	Curach Chathail	Cahill's moor	Natural landscape feature/historic familial association	No
Adrivale	Eadarghabháil	Between the forks, or central forks	Natural landscape feature	No
Gneeves	Na Gníomha	A gneeve is the twelfth part of a ploughland	Reference to local historic/prehistoric settlement	No
Curagh	An Currach	A marsh	Natural landscape feature	No
Caherdowney	Cathair Dhúnaigh	Downey's stone fort	Reference to local historic/prehistoric settlement with familial association	Yes
Garranecamey	Garrán Uí Chearnaigh	O'Kearney's shrubbery	Reference to local historic/prehistoric settlement with familial association	No
Glendav	Gleann Daimh	Glen or valley of the ox	May refer to local booleying practise in the upland areas	No
Labbadermody	Leaba Dhiarmada	Grave, megalithic tomb, bed	Reference to local prehistoric settlement evidence	No
Coomnagire	Com an Ghadhair	Hollow of the dogs	Natural landscape feature and faunal association	No
Coomnaclohy	Com na Cloiche	Hollow of the stone	Natural landscape feature	No
Slievereagh	An Sliabh Riabhach	Grey mountain	Natural landscape feature	No
Derrynasaggart	Doire na Sagart	Derry or oakwood of the priests	Reference to local ecclesiastical settlement	No

Of the toponymic information identified within the study area for the Proposed Development, three placenames (Cummeennabuddoge, Derrynafinnia and Glendav) make reference to livestock, specifically cattle. This may be indicative of Later-Medieval booleying practises in the Derrynasaggart uplands.

Two further placenames (Kippagh and Gneeve) make reference to tillage practises. One placename (Derrynasaggart) has an ecclesiastical association. The remainder of the placenames make reference to the character of the natural landscape, local flora and fauna, and a number of familial land associations

14.3.6 Recent Excavations

The Excavations Bulletin is an annual account of all excavations carried out under license. The database is available online at www.excavations.ie and includes excavations from 1985 to 2019. This database was consulted as part of the desktop research for this report to establish if any archaeological investigations had been carried out within the townlands traversed by the route of the Proposed Development.

The database produced five examples of archaeological excavations undertaken within the townlands incorporated by the study area, two of which did not identify archaeological deposits (see also Appendix 10-2).

The most prestigious investigations in the vicinity of the Proposed Development Site were those carried out in 2001 at the cairn and hut sites located on the 'Western Pap', in the adjoining townland of Derrynafinnia (01E0837).

A rescue excavation was carried out, on behalf of Dúchas, to repair the damage to the cairn, and also to test a hut site, part of a complex of structures on the southern slopes of the Paps. The cairns had suffered considerable damage owing to the impact of human traffic on the mountaintops. The cairn on the western Pap has been interfered with, presumably by hill-walkers, in attempts to construct crude shelters in the side of the cairn.

A limited examination of two of the hut sites on the slope of the mountain was carried out, to try and establish a possible connection between the building of these structures and the cairns.

An oval hut site, 4.9m east-west by 2.4m, constructed of stone and rising to a maximum height of 0.65m, was photographed, drawn, and then investigated by means of a 1m-wide trench across its interior.

It was found that the interior was composed of stone collapse, which lay on a black layer of peat and occasional charcoal. This was interpreted as a floor layer. A stone disc-bead, a stone axe and a quantity of charcoal were recovered from this layer.

A second D-shaped hut site was also examined in this fashion. This hut measured 5m east-west by 2m. It was composed of collapse on top of a peaty layer. No artefacts or charcoal were recovered from this hut.

Two previous archaeological excavations had been carried out in the townland of Slieveareagh as part of the N22 Baile Bhuirne-Macroom Road Scheme (Lot 1) Archaeological Consultancy Services Contract in 2017/18.

Excavation at Slieveareagh 1 (E004903) recorded the remains of three overlapping burnt mounds, two associated troughs, one of which contained a degraded in-situ timber lining, a possible third trough, two post-holes, three stake-holes and two stake-hole clusters, several of which contained degraded in-situ stakes.

Excavation at Slieveareagh 2 (E004988) recorded the remains of two burnt mounds, A and B, with a trough and well associated with Mound A. There was no stratigraphic relationship between the two mounds making it impossible to determine which was the earlier.

Mound A was located to the north-west of the site on a relatively level patch of ground on an otherwise sloping hillside. A layer of very soft light greenish yellow peaty clay was

found between the main deposits of mound material and the natural subsoil, especially on the edges of the mound.

This layer contained frequent plant fibre and wood fragment inclusions. It was not found over any of the cut features, suggesting that it was the remnants of an earlier topsoil layer, sealed by the burnt mound.

There would appear to have been two phases of activity at Mound A (Phases I & II), with a third abandonment phase (Phase III). The first phase involved the excavation of the trough, well and the accumulation of the earliest layers of mound material.

The second phase involved the building of a stone hearth, lining of the well and the laying of a stone path and platform. The third phase related to the accumulation of mound material in trough after use.

Monitoring of groundworks associated with the construction of an eleven-turbine wind farm was undertaken over several months in late 2004/early 2005 (04E1346). The extraction of deep peat deposits from the site was monitored but did not reveal the presence of any archaeological finds or features.

Investigations associated with the Millstreet 220/110kV Substation Project, comprising the construction of a substation complex with associated delivery access road, construction of five masts and the provision of approx. 4.8km of a buried cable line from the substation to an existing substation at Garow, Co. Kerry, were undertaken by EirGrid and ESB Networks in the townland of Caherdowney in 2013 (13E070).

Planning permission by An Bord Pleanála for the development required that all excavation works be monitored.

Nothing of archaeological interest and/or potential was noted during the programme of monitoring. However, three sherds of pottery, four fragmented clay pipe stems and a fragment of clay pipe bowl, all of probable 19th-century date were recovered, all from the intermediate 'mixed-layer' between the sod/topsoil and subsoil horizons.

14.3.7 Designated archaeological and architectural sites

Record of Monuments and Places (RMPs)

Section 12 (1) of the National Monuments Act 1994 made provision for the establishment and maintenance of a Record of Monuments and Places (RMP). Under this Act, each site recorded in the Record of Monuments and Places is granted statutory protection.

When the owner or occupier of a property, or any other person proposes to carry out, or to cause, or to permit the carrying out of any work at or in relation to a recorded archaeological monument they are required to give notice in writing to the Minister for Housing, Local Government and Heritage 2 months before commencing that work.

There are 143 recorded archaeological monuments incorporated by the study area. These are summarised in Table 14-11 below. Only one RMP CH001 (Hut Site; KE077-001) is located within the Proposed Development area. A site inspection of the marked location of KE077-001 could not identify any surface remains of the hut site within the present dense, mature forestry.

Without intrusive investigation it is unclear if this monument has been entirely destroyed by the forestry plantation subsequent to it being recorded in the Record of Monuments and places for Co. Cork, or if sub-surface elements remain *in situ*.

Table 14-11: Recorded monuments within the study area

CH. No.	ID	Summary	Townland
CH001	KE077-001----	Hut site	Cummeennabuddoge
CH002	KE076-044----	Enclosure	Knocknabro
CH003	KE076-009001-	Enclosure	Knocknabro
CH004	KE076-009002-	Hut site	Knocknabro
CH005	KE076-009008-	Field boundary	Knocknabro
CH006	KE076-009007-	Hut site	Knocknabro
CH007	KE076-009----	Enclosure	Knocknabro
CH008	KE076-009003-	Hut site	Knocknabro
CH009	KE076-009004-	Hut site	Knocknabro
CH010	KE076-009005-	Hut site	Knocknabro
CH011	KE076-009006-	Hut site	Knocknabro
CH012	KE076-002008-	Hut site	Knocknabro
CH013	KE076-002009-	Hut site	Knocknabro
CH014	KE076-002005-	Hut site	Knocknabro
CH015	KE076-002006-	Hut site	Knocknabro
CH016	KE076-002007-	Hut site	Knocknabro
CH017	KE076-002001-	Hut site	Knocknabro
CH018	KE076-002002-	Field boundary	Knocknabro
CH019	KE076-002----	Enclosure	Knocknabro
CH020	KE076-002003-	Hut site	Knocknabro
CH021	KE076-014----	Enclosure	Glashacormick
CH022	KE076-045----	Hut site	Knocknagowan
CH023	CO047-012----	Fulacht fia	Currahill
CH024	CO047-013----	Fulacht fia	Currahill
CH025	CO048-003001-	Ringfort - rath	Adrivale
CH026	CO048-003002-	Souterrain	Adrivale
CH027	CO048-160----	Ringfort - rath	Gneeves (Muskerry West by.)
CH028	CO048-157----	Ringfort - rath	Gneeves (Muskerry West By.)
CH029	CO048-158----	Souterrain	Gneeves (Muskerry West By.)
CH030	CO048-052----	Fulacht fia	Curragh (Muskerry West By., Drishane Par.)
CH031	CO048-053----	Fulacht fia	Curragh (Muskerry West By., Drishane Par.)
CH032	CO048-058----	Ringfort - cashel	Curragh (Muskerry West By., Drishane Par.)
CH033	CO048-054----	Fulacht fia	Curragh (Muskerry West By., Drishane Par.)
CH034	CO048-055001-	Enclosure	Curragh (Muskerry West By., Drishane Par.)
CH035	CO048-055002-	Souterrain	Curragh (Muskerry West By., Drishane Par.)
CH036	CO048-056----	Stone circle - five-stone	Ballyvouskill
CH037	CO048-086----	Megalithic tomb - wedge tomb	Caherdowney
CH038	CO058-015----	Redundant record	Leaba Dhiarmada

CH. No.	ID	Summary	Townland
CH039	CO058-070----	Hut site	Com An Ghadhair
CH040	CO058-003----	Ringfort - rath	Doire Na Sagart
CH041	CO058-006----	Ringfort - cashel	An Sliabh Riabhach
CH042	CO058-007----	Standing stone - pair	An Sliabh Riabhach
CH043	CO058-008----	Standing stone	An Sliabh Riabhach
CH044	CO058-075----	Megalithic tomb - wedge tomb	Doire Na Sagart
CH045	CO058-060----	Megalithic tomb - wedge tomb	Doire Na Sagart
CH046	CO058-076----	Megalithic tomb - wedge tomb	Doire Na Sagart
CH089	CO048-002----	Fulacht fia	CAurachcahill
CH090	CO057-012----	Structure	Ná Miláná
CH091	CO058-001----	Kiln - lime	AN Doinán Álainn
CH092	CO058-002----	Kiln - lime	AN Doinán Álainn
CH093	CO058-004002-	Stone row	Doire Na Sagart
CH094	CO058-005----	Ringfort - cashel	Doire Na Sagart
CH095	CO058-009----	Architectural fragment	An Sliabh Riabhach
CH096	CO058-010001-	Designed landscape - belvedere	An Sliabh Riabhach
CH097	CO058-010002-	Redundant record	An Sliabh Riabhach, Gort na Tiobratán
CH098	CO058-011----	Castle - unclassified	An Sliabh Riabhach
CH099	CO058-012----	Standing stone	An Sliabh Riabhach
CH100	CO058-014----	Ringfort - rath	Ah nCheapach Thoir
CH101	CO058-016----	Standing stone	Na hUláin Thiar
CH102	CO058-017----	Ringfort - rath	Na hUláin Thiar
CH103	CO058-018----	Ringfort - rath	Na hUláin Thiar
CH104	CO058-019----	Ringfort - rath	Na hUláin Thiar
CH105	CO058-020----	Fulacht fia	Na hUláin Thiar
CH106	CO058-021----	Ringfort - rath	Na hUláin Thiar
CH107	CO058-061001-	Ringfort - rath	Na hUláin Thiar
CH108	CO058-061002-	Souterrain	Na hUláin Thiar
CH109	CO058-062----	Cairn - unclassified	Na hUláin Thiar
CH110	CO058-063----	Fulacht fia	Na hUláin Thiar
CH111	CO058-064----	Fulacht fia	Na hUláin Thiar
CH112	CO059-051001-	Cairn - unclassified	Daingean Na Saileach
CH113	CO059-051002-	Cairn - ring-cairn	Daingean Na Saileach
CH114	CO059-051003-	Kiln - corn-drying	Daingean Na Saileach
CH115	KE068-043----	Hut site	Gortderig
CH116	KE068-045----	Enclosure	Gortnagane
CH117	KE068-046----	Enclosure	Gortnagane
CH118	KE068-047----	Enclosure	Shrone More
CH119	KE068-048----	Enclosure	Shrone More
CH120	KE068-049----	Enclosure	Awnaskirtaun
CH121	KE068-104----	Hut site	Gortnagane

CH. No.	ID	Summary	Townland
CH122	KE068-106----	Hut site	Gortnagane
CH123	KE068-107----	Mound	Gortnagane
CH124	KE068-108----	Hut site	Gortnagane
CH125	KE068-126001-	Field boundary	Gortderrig, Gortnagane
CH126	KE068-165----	Fulacht fia	Gortnagane
CH127	KE068-168----	Hut site	Gortderrig
CH128	KE068-169001-	Hut site	Shrone More
CH129	KE068-169002-	Hut site	Shrone More
CH130	KE068-169003-	Hut site	Shrone More
CH131	KE068-169004-	Hut site	Shrone More
CH132	KE068-169005-	Mound	Shrone More
CH133	KE068-170----	Field system	Shrone More
CH134	KE068-173----	Hut site	Gortderrig
CH135	KE076-002004-	Hut site	Knockabro
CH136	KE076-003----	Enclosure	Knockagowan
CH137	KE076-003001-	Hut site	Knockagowan
CH138	KE076-003002-	Hut site	Knockagowan
CH139	KE076-003003-	Enclosure	Knockagowan
CH140	KE076-003004-	Hut site	Knockagowan
CH141	KE076-010----	Enclosure	Derynafinnia
CH142	KE076-019----	Cairn - unclassified	Derynafinnia, Gortderrig
CH143	KE076-040001-	Hut site	Derynafinnia
CH144	KE076-040002-	Hut site	Derynafinnia
CH145	KE076-040003-	Hut site	Derynafinnia
CH146	KE076-040004-	Hut site	Derynafinnia
CH147	KE076-040005-	Hut site	Derynafinnia
CH148	KE076-040006-	Standing stone	Derynafinnia
CH149	KE076-040007-	Hut site	Derynafinnia
CH150	KE076-040008-	Hut site	Derynafinnia
CH151	KE076-046----	Hut site	Derynafinnia
CH152	KE076-047----	Field boundary	Derynafinnia
CH153	KE076-058----	Country house	Glashacormack
CH154	KE076-067----	Kiln - lime	Derymaclavode
CH155	KE076-068001-	Hut site	Derynafinnia
CH156	KE076-068002-	Hut site	Derynafinnia
CH157	KE076-068003-	Hut site	Derynafinnia
CH158	KE076-068004-	Field boundary	Derynafinnia
CH159	KE076-069----	Fulacht fia	Derynafinnia
CH160	KE076-071----	Redundant record	Deryreag
CH161	KE076-083001-	Hut site	Derynafinnia
CH162	KE076-083002-	Hut site	Derynafinnia
CH163	KE076-083003-	Hut site	Derynafinnia
CH164	KE076-083004-	Hut site	Derynafinnia
CH165	KE076-083005-	Hut site	Derynafinnia

CH. No.	ID	Summary	Townland
CH166	KE076-083006-	Hut site	Derrynafinnia
CH167	KE076-084001-	Hut site	Derrynafinnia
CH168	KE076-084002-	Hut site	Derrynafinnia
CH169	KE076-084003-	Hut site	Derrynafinnia
CH170	KE076-085----	Fulacht fia	Derrynafinnia
CH171	CO048-087----	Ringfort - rath	Caherdowney
CH172	CO048-088----	Kiln - Lime	Carraigacooleen
CH173	CO048-104----	Enclosure	Carraigacooleen
CH174	CO048-142----	"	Glantane East
CH175	CO048-159----	Earthwork	Carraigacooleen
CH176	CO058-043----	RATH	Baile Mhic Íre
CH177	CO059-002----	Standing stone	Gelann Daimh
CH178	CO059-001001-	Ringfort - RATH	Gelann Daimh
CH179	CO059-049----	Rath	Lios Carrigán
CH180	CO059-003001-	Ringfort - rath	Gelann Daimh
CH181	CO059-004----	Hut site	Curraleigh (Muskerry West By.)
CH182	CO059-005----	Enclosure	Curraleigh (Muskerry West By.)
CH183	CO059-050001-	Enclosure	Lios Carrigán
CH184	CO059-006----	Ringfort	Garranecorney
CH185	CO059-007----	RATH	Garranecorney
CH186	CO059-008----	RATH	Garranecorney

National Monuments

National monuments are broken into two categories: National Monuments in the ownership or guardianship of the state and National Monuments in the ownership or guardianship of a local authority.

Section 8 of the National Monuments (Amendment) Act 1954 provides for the publication of a list of monuments, the preservation, of which, are considered to be of national importance. Two months' notice must be given to the Minister for Housing, Local Government and Heritage where work is proposed to be carried out at, or in relation to, any National Monument.

There are no National Monuments incorporated by the study area.

Sites with Preservation Orders

The National Monuments Act 1930-2014 (as amended) provide for the making of Preservation Orders and Temporary Preservation Orders in respect of National Monuments. Under Section 8 of the National Monument Act 1930 (as amended) the Minister for Housing, Local Government and Heritage, can place a Preservation Order on a monument if, in the Ministers' opinion, it is a National Monument in danger of being or is actually being destroyed, injured or removed or is falling into decay through neglect.

The Preservation Order ensures that the monument shall be safeguarded from destruction, alteration, injury, or removal, by any person or persons without the written consent of the Minister.

There are no sites with preservation orders incorporated by the study area.

Protected Structures

The Cork County Development Plan 2022–2028 and Kerry County Development Plan 2022–2028 were consulted for schedules of Protected Structures. These are buildings that a planning authority considers to be of special interest from an architectural, historical, archaeological, artistic, cultural, scientific, social, and/or technical point of view.

Protected Structures receive statutory protection from injury or demolition under Section 57 (1) of the Local Government (Planning and Development) Act 2000. Protected structure status does not exclude development or alteration but requires the developer to consult with the relevant planning authority to ensure that elements which make the structure significant are not lost during development.

There are no Protected Structures within the study area.

Architectural Conservation Areas

The Cork County Development Plan 2022–2028 and Kerry County Development Plan 2022–2028 were consulted for records relating to Architectural Conservation Areas (ACAs). The stated objective of ACAs is to conserve and enhance the special character of the area, including traditional building stock and material finishes, spaces, streetscapes, landscape and setting.

There are no areas listed as ACAs incorporated by the study area.

National Inventory of Architectural Heritage (NIAH)

The National Inventory of Architectural Heritage (NIAH) is a state initiative under the administration of the Department of Housing, Local Government and Heritage (DoHLGH).

It was established on a statutory basis under the provisions of the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999. Its purpose is to identify, record and evaluate the post-1700 architectural heritage of Ireland, uniformly and consistently, as an aid in the protection and conservation of the built heritage.

NIAH surveys provide the basis for the recommendations of the Minister for Housing, Local Government and Heritage to the planning authorities for the inclusion of particular structures in their Record of Protected Structures (RPS).

There are no structures listed in the NIAH within the study area.

14.3.8 Undesignated cultural heritage sites

This section deals with sites that are considered to be of cultural heritage value but which do not fall within the above categories as they are not registered. Aerial photography from the 1995, 2000, and 2005 fly-overs was inspected, as well as the latest OSI images, Google Earth and Bing Maps satellite imagery. In addition, publicly available LiDAR data published by TII and OPW was also consulted.

Undesignated cultural heritage sites that comprise extant remains

Undesignated cultural heritage sites which comprise extant remains are typically, though not always, post-1700 in date. The majority of these sites are represented on the 6" and/or 25" Ordnance Survey maps. Many constitute country houses and associated lodges, while others may be bridges or industrial features, hollow-ways, mass rocks etc.

There are five undesignated cultural heritage sites that comprise extant remains present within the study area (Appendix 14-1–14-2; Figure 14-1):

- CH060 represents a vernacular settlement and associated field system located beside the Clydagh River in the townland of Clydaghroe, and marked on all historic editions of the Ordnance Survey map. This settlement cluster includes six buildings marked on the 1st Edition Ordnance Survey sheet, at least two of which are still extant;
- CH061 represents another vernacular settlement and associated field system again located beside the Clydagh River in the townland of Cummeennabuddoge and also marked on all historic editions of the Ordnance Survey map. This settlement contains only one structure;
- CH078 represents a vernacular field system on the First Edition 6-inch Ordnance Survey sheet, with adjacent ruinous vernacular house and a nearby limekiln;
- CH080 represents a possible ford/bridge located at the southwestern end of the delivery access route; and
- CH081 represents a possible hut site that has not been previously identified was noted c.120m south of the proposed grid connection cable route.

Undesignated cultural heritage sites that do not comprise extant remains

Undesignated cultural heritage features which do comprise extant remains typically include features such as lime kilns, dwellings, outhouses, trackways, etc. which are identifiable on maps such as the 6" and / or 25" Ordnance Surveys but which no longer have an above-ground presence.

There is no known undesignated cultural heritage sites that do not comprise extant remains located within the study area.

Townland boundaries

The Proposed Development affects 13 townland boundaries (Table 14-12). One townland boundary is located within the Proposed Development Site (TB011), while the remainder of the townland boundaries border the Proposed Development Site.

Table 14-12: Townland boundaries effected by the proposed development

CH. No.	ID	Townland
CH047	TB001	Townland boundary between Knocknagowan and Clydaghroe
CH048	TB002	Townland boundary between Knocknagowan and Cummeennabuddoge
CH049	TB003	Townland boundary between Coomacheo and Cummeennabuddoge
CH050	TB004	Townland boundary between Gneevs and Cummeennabuddoge
CH051	TB005	Townland boundary between Curragh and Cummeennabuddoge
CH052	TB006	Townland boundary between Cummeennabuddoge and Caherdowney
CH053	TB007	Townland boundary between Cummeennabuddoge and Glendav
CH054	TB008	Townland boundary between Coomnagre and Cummeennabuddoge

CH. No.	ID	Townland
CH055	TB009	Townland boundary between Coomnaclohy and Cummeennabuddoge
CH056	TB010	Townland boundary between Coomnaclohy and Clydaghrroe
CH057	TB011	Townland boundary between Clydaghrroe and Cummeennabuddoge
CH058	TB012	Townland boundary between Clydaghrroe and Slievareagh
CH059	TB013	Townland boundary between Glashacormick and Clydaghrroe

14.3.9 Areas of Archaeological Potential (AAPs)

Areas of archaeological potential (AAPs) are areas or locations whose characteristics present a higher potential for unknown archaeological features to be present.

Seven AAPs have been identified within the study area for the Proposed Development (Table 14-13).

Table 14-13: AAPs effected by the study area

CH No	Description	Within Proposed Development Site	Townland
CH062	Lough Carricknamork/Lough Gal – two small lakes 100 m apart near the summit of Knocknamork which straddle the Cork-Kerry border. The name 'Lough Gal' may indicate prehistoric activity.	Yes	Coomnaclohy/Clydaghrroe
CH063	A point at which a small unnamed tributary enters the Clydaghr River. Rivers are areas of high archaeological potential	Yes	Clydaghrroe
CH064	A point at which a small unnamed tributary enters the Clydaghr River. Rivers are areas of high archaeological potential	Yes	Clydaghrroe
CH065	A point at which a small unnamed tributary enters the Clydaghr River. Rivers are areas of high archaeological potential	Yes	Clydaghrroe
CH066	A point at which a small unnamed tributary enters the Clydaghr River. Rivers are areas of high archaeological potential	Yes	Clydaghrroe
CH067	A point at which a small unnamed tributary enters the Clydaghr River. Rivers are areas of high archaeological potential	Yes	Cummeennabuddoge
CH068	A point at which a small unnamed tributary enters the Clydaghr River. Rivers are areas of high archaeological potential	Yes	Cummeennabuddoge
CH076	Lough Gal	No	Glashacormick
CH077	Lough Gal - includes and Topographical File recorded in the National Museum Database of stray archaeological finds	Yes	Clydaghrroe/Coomnaclohy
CH079	Unnamed Stream located adjacent to proposed delivery access route	No	Cummeenavrick

Watercourses are considered to be of high archaeological potential, often associated with fulachta fiadh or burnt mounds in rural settings and more commonly, fords, ancient bridging sites, mills, quays and harbours in urban locations.

In addition, estuary sites, such as the location of the railway, have been favoured for human occupation since prehistoric times due to their proximity to rich food sources and have additionally served as routeways, boundaries, defences and as a focus for ritual and votive offering.

As a result, the CH sites listed above are considered to be Areas of Archaeological Potential.

14.4 Assessment of Effects and Mitigation

This section assesses the likely effects that the Proposed Development will have on the baseline/receiving environment, prior and after the implementation of any mitigation measures.

14.4.1 Do-Nothing Scenario

The do-nothing scenario seeks to describe the consequences that are reasonably likely to occur without the proposed project. If the Proposed Development were not to proceed, the site would continue to be managed as an existing commercial forestry with clear-felling and drainage activity continuing.

Potential impacts to sub-surface archaeology (if present) could continue to occur through the process of clear felling. Any additional indirect effects on archaeological, architectural and cultural heritage, in particular, in the wider landscape setting would not occur.

14.4.2 Construction Phase Potential Effects – (Indirect)

Indirect effects on archaeology, architectural and cultural heritage are considered to be those effects which happen away from the Proposed Development site. This includes impacts on visual setting of any cultural heritage asset in the wider landscape. As these effects are only possible once the proposed turbines have been constructed, they are considered operational effects and are therefore discussed in Section 14.4.4.

No indirect effects are predicted to occur at the construction stage.

14.4.3 Construction Phase Potential Effects – (Direct)

Direct Impact refers to a 'physical impact' on a monument or site. The construction phase of the development consists largely of earthmoving activities such as peat and topsoil removal.

The potential impacts on the known and potential archaeological, architectural and cultural heritage of the area are outlined in Table 14-14 with the suggested mitigation measures in the following paragraphs.

The impacts are described according to each Cultural Heritage Receptor (CH site), that was identified within the baseline environment. Where any potential direct impacts have been identified, these impacts are avoided, reduced or offset through the use of suitable mitigation measures.

Table 14-14: CH sites with potential for a direct effect from the Proposed Development

CH No.	Baseline Value	Quality of effect:	Description of significance :	Extent and Context:	Probability and Duration of Effect:	Significance of Impact:
CH001	Very High	Negative Effect	Negligible	Indirect impact to setting only.	Long-term, reversible Effects	Negligible Negative Effect
CH057	Medium/ High	Negative Effect	Slight	Potential for direct impact from construction groundworks and indirect impact to setting	Permanent Effects	Slight Negative Effect
CH078	Medium/ High	Negative Effect	Slight	Potential for direct impact from construction groundworks and indirect impact to setting	Permanent Effects	Slight Negative Effect
CH079	High	Negative Effect	Slight	Potential for direct impact from construction groundworks and indirect impact to setting	Permanent Effects	Slight Negative Effect

Of the 186 CH sites recorded within the study area, CH001, CH057, CH078 and CH079 are predicted to potentially be subject to a negative direct impact from the construction phase of the Proposed Development.

Direct Impact on Recorded Archaeological Monuments

One Recorded Archaeological Monument (CH001 – RMP KE077-001— a hut site of which there is no surface expression) is located within the application area although not within the footprint of any proposed turbines or any other associated infrastructure. As a result, the Proposed Development will have a long-term **Negligible** effect of no significance on extant recorded monuments.

No other Recorded Archaeological Monuments are located within 250m the Proposed Development Site application area or any associated infrastructural works, with the closest being CH075 located 250m from the proposed site access entrance (Plate 16).

As no direct effects to Recorded Archaeological Monuments were identified, mitigation measures are not required.

Proposed Mitigation Measures

To partially offset the impact of the Proposed Development on the setting of the archaeological landscape, it is proposed to incorporate information boards on publicly accessible area within pertaining to the archaeological, architectural and cultural heritage historical of the Clydagh Valley as part of the development.

Residual Impact

There will be no residual impacts since no impacts were identified.

Residual significance of Effects No direct impacts to Recorded Archaeological Monuments were identified in the assessment with no residual effects predicted.

Direct Impact on Townland Boundaries and CH Sites along linear elements of the Proposed Development (site access and cabling routes)

Three additional CH sites with no statutory protection were identified from cartographic sources and walkover survey within and immediately adjacent to the Proposed Development Site.

CH057 represents the townland boundary between the townlands of Clydaghroe and Cummeennabuddoge. It is situated in a modern forestry plantation, marked by a corresponding fire-break and comprises no upstanding remains. It is marked as undefined in all editions of the Ordnance Survey.

Cabling routes and onsite access tracks crossing this boundary would have a direct physical impact on any potential sub-surface element of this boundary at the crossing point.

CH078 represents a vernacular field system and associated ruinous vernacular structure marked on the First Edition 6-inch Ordnance Survey sheet, with an adjacent possible ford/bridge (CH080) also located at the southwestern end of the delivery access route though outside the footprint of any proposed works.

CH079 represents a riverine area of archaeological potential located immediately adjacent to the delivery access route.

These CH sites are considered to be of local heritage value and in this regard any potential impacts to the structures during cabling will be **Slight**.

Proposed Mitigation Measures

As part of an advance works programme prior to construction, a combination of advance geophysical survey (where practical) and advance archaeological test trenching will be carried out by a suitably qualified archaeologist under licence, along the proposed grid connection cable route.

In addition, advance archaeological test trenching (where practical) will be carried out by a suitably qualified archaeologist under licence, along the proposed access route in the vicinity of CH078. Results from these archaeological works shall be compiled in a detailed report. This report will be submitted to the National Monuments Service (DHLGH).

As part of an advance works programme prior to construction, an underwater archaeological survey will be undertaken for all watercourses where they are traversed by the Proposed Development.

A systematic advance programme of archaeological field-walking surveys will also be carried out within construction areas in forestry plantations following tree felling to confirm the conditions predicted in this assessment i.e., that they contain no visible surface traces of potential unrecorded archaeological or architectural heritage sites.

All ground disturbance associated with the construction of the Proposed Development will be monitored by a suitably qualified archaeologist working under licence as issued by the minister (DoHLGH) under section 26 of the National Monuments Acts (1994-2014).

In the event of archaeological features, finds and/or deposits being encountered during the monitoring, all relevant authorities will be notified immediately. Preservation in-situ or preservation by record (excavation) may be required.

Where groundworks have a direct effect on the Cummeennabuddoge/Clydaghroe townland boundary (CH057), a suitably qualified archaeologist will monitor excavation works and create a full descriptive, photographic and survey record of the CH site prior to the removal of any components. A report will be compiled on completion of the monitoring and sent to the Local Authority and National Monuments Service.

Residual Impact

The residual impacts after the proposed mitigation measures have been implemented will be **Negligible**.

Residual significance of Effects

The overall significance of impacts will be **Slight**.

Direct Impact on Subsurface Archaeology

The potential to encounter previously unknown sub-surface archaeological deposits is included below as part of the assessment of each element of the Proposed Development.

Some areas of the landscape comprise dense commercial forestry on deep-ploughed and disturbed land, preventing a visual inspection as part of the assessment. These areas were inspected remotely through examination of the aerial photograph archive available through OSI and Google Earth, as well as an examination of all available historic mapping.

No additional features of archaeological, architectural or cultural significance were identified during the field inspection. Nonetheless, it remains possible that sub-surface archaeological features and/or artefacts survive.

The excavation of topsoil /peat for the turbine bases, hardstands, compounds, borrow pits, proposed roads, substation site, met mast site, grid connection cable route and road construction or upgrading associated with turbine delivery route may impact on any new sites, if present.

Furthermore, potential sub-surface archaeological features near to proposed water crossings may be impacted by groundworks. No instream works are proposed at any water crossings. Ground works at these locations will also be monitored during construction.

Should new archaeological sites or features be present within the areas where machine excavation will take place (as listed above) the impact will be significant, negative and

permanent (i.e., the excavation by machinery would permanently remove the sites resulting in a permanent loss of information pertaining to the site).

Proposed Mitigation Measures

As part of an advance works programme prior to construction, a combination of advance geophysical survey (where practical) and advance archaeological test trenching will be carried out by a suitably qualified archaeologist under licence, along the proposed grid connection cable route.

In addition, advance archaeological test trenching (where practical) will be carried out by a suitably qualified archaeologist under licence, along the proposed access route in the vicinity of CH078. Results from these archaeological works shall be compiled in a detailed report. This report will be submitted to the National Monuments Service (DHLGH).

As part of an advance works programme prior to construction, an underwater archaeological survey will be undertaken for all watercourses where they are traversed by the Proposed Development.

A systematic advance programme of archaeological field-walking surveys will also be carried out within construction areas in forestry plantations following tree felling to confirm the conditions predicted in this assessment i.e., that they contain no visible surface traces of potential unrecorded archaeological or architectural heritage sites.

All ground disturbance associated with the construction of the Proposed Development will be monitored by a suitably qualified archaeologist working under licence as issued by the minister (DoHLGH) under section 26 of the National Monuments Acts (1994-2014).

In the event of archaeological features, finds and/or deposits being encountered during the monitoring, all relevant authorities will be notified immediately. Preservation in-situ or preservation by record (excavation) may be required.

Residual Impact

The sites/features, if detected, during monitoring will be preserved by record (archaeologically excavated) or preserved in-situ (avoidance) and therefore a full record made of same.

In this regard, the potential impact after the mitigation measures is likely to be **Slight**.

Residual significance of Effects

The overall significance of effects will be **negative slight and permanent**.

14.4.4 Operational Phase Potential Effects (Indirect)

Table 14-15: CH sites with potential for an indirect effect from the Proposed Development

CH No.	Baseline Value	Quality of effect:	Extent and Context :	Probability and Duration of Effect:	Significance of Impact:
CH083	Very High	Negative Effect	Indirect impact to setting only.	Long-term, reversible Effects	Moderate Negative Effect

Indirect impacts can occur where a feature or site of archaeological, architectural heritage merit or their setting is located in close proximity to a Proposed Development.

Indirect impacts for the Proposed Development are mainly concerned with impacts on setting of cultural heritage assets. Impacts on settings of sites may arise when a development is proposed immediately adjacent to a recorded monument or cluster of monuments or any cultural heritage asset.

While the Proposed Development may not physically impact on a site, it may alter the setting of a monument or group of monuments. There is no standardised industry-wide approach for assessing the degree of impact to the setting of a monument. This is based on professional judgement, experience and an analysis of the Zone of Theoretical Visibility for each turbine.

Potential impact to the visual amenity of a site or area and the significance of same is dependent on a number of factors regarding the sensitivity of the location or 'receptor' and the scale or magnitude of the Proposed Development.

Similarly, the extent of the development, its duration and its reversibility should all be considered. Potential indirect operational impacts are discussed below for designated cultural heritage assets, (see Section 14.3.7). As all undesignated cultural heritage sites have no designated protections and are of local significance only, they are not considered for visual impact.

Indirect Impact on designated cultural heritage sites

The Proposed Development is located on the north-northwest-facing slopes of the Derrynasagart mountains, with views predominantly to this direction. One Recorded Monument (CH001 (RMP KE077-001--- a hut site) is located within the Proposed Development Site. However, no above surface trace of this RMP survives, and effects on the immediate setting will not occur.

The turbines will be visible from many recorded monuments that do survive in the wider area and from a considerable distance in the surrounding landscape, particularly to the north, northwest and northeast, though views in these directions beyond The Paps are obscured by the topography of The Paps Range as well as Claragh Mountain to the northeast.

One hundred and forty-three recorded monuments are located within 5km of the Proposed Development Site. Beyond 5km, where the turbines will be visible through occasional lines of site between topographical peaks, there is no potential for visual impact to setting or from visual dominance of the turbines owing to distance from the Proposed Development.

CH083 -*The Paps Archaeological Landscape* (Plate 25 and 26) borders the Proposed Development Site to the northwest.

CH002-CH022, CH083 and CH0115-CH170 (all comprising RMPs sites that are located within the study area) are also contained within *The Paps Archaeological Landscape*, with the remaining designated cultural heritage sites (CH023-046 and CH089-CH114) being located outside of this archaeological landscape as it is identified in the County Kerry Development Plan (2022-2028).

Objective KCDP 8-25 and KCDP 8-26 of the Kerry County Development plan sets out the following objectives with respect of the archaeological landscapes identified in Volume 3 of the same publication:

"KCDP 8-25: 'Ensure that development (including forestry, renewable energy developments and extractive industries) within the vicinity of a recorded monument, zone of archaeological potential or archaeological landscape does not detract from the setting of the feature and is sited and designed appropriately and sympathetically with the character of the monument/feature/landscape and its setting.

KCDP 8-26: 'Ensure the active protection of the 19 identified, significant archaeological landscapes outlined in Volume 3 with particular emphasis on the landscape settings, views to and from the landscapes and monument/feature inter-visibility within these landscapes".

A ZTV analysis of the Proposed Development indicates that within this archaeological landscape, 18 recorded monuments will be within the ZTV of 1-9 turbines, while the remaining RMPs will be within the ZTV of 16-17 turbines.

However, no turbine effects the intervisibility between RMPs within the defined archaeological landscape area, and as such respects the character and integrity of the archaeological landscape. Any visual impact will be with regard to setting, particularly as the landscape is viewed from the east and southeast, and views from the landscape to the east and southeast.

CH023-CH036 are located to the east of the Proposed Development. Of these 14 RMPs, six will not be within the ZTV of any turbine, with the remaining eight recorded monuments being within the ZTV of 1-3 turbines.

CH037-CH046 are located to the south and southwest of the Proposed Development Site. CH041, CH042 and CH043 will be with the ZTV of 10-12 turbines, with the remaining eight CH sites in this area being within the ZTV of 16-17 turbines.

Views to the south and southeast from The Paps archaeological landscape will include at least 1-6 turbines but most frequently turbines 16-17. However, extensive views towards any RMPs to the south and southeast beyond the Clydagh Valley are already largely obscured by topography, with the peaks of Cnoc an Choimín, Cnoc na Morc, and Mullach an Ois greatly obscuring the view in this direction.

Views from all directions toward the twin peaks of The Paps and the cairns situated there remain unaffected, with the exception of some views from the east, where the peaks will be set with the proposed turbines in the foreground at a linear distance of c.5 km from the peaks of The Paps at their closest turbine.

Given that many of the designated cultural heritage sites in the wider landscape are already obscured from view by the natural topography, the visual impact of the Proposed Development is lessened to some degree. It is also considered that this visual impact is reversible.

However overall impact on designated cultural heritage sites within 5km is considered to be **Moderate**, largely owing to the proximity of The Paps Archaeological Landscape and the impact to setting of this landscape as it is viewed from the east and southeast, and views from the landscape to the east and southeast.

As the ZTV is based on a bare landscape model this potential visibility is likely to be less when taking into consideration existing boundaries and natural vegetative screening, though no assumption of this has been taken for this assessment, and the assessment is based on a worst-case scenario. The pre-mitigation impact is considered to be **Moderate**.

Proposed Mitigation Measures

To partially offset the impact of the Proposed Development on the setting of the archaeological landscape, it is proposed to incorporate information boards on publicly accessible area within pertaining to the archaeological, architectural and cultural heritage historical of the Clydagh Valley as part of the development.

Residual Impact

The residual impact is also considered to be **Moderate**.

Significance of Effects

The overall significance of impacts will be **Negative, long-term, moderate and reversible**.

14.4.5 Operational Phase Potential Effects (Direct)

Subject to the implementation of the appropriate archaeological mitigation measures during the construction phase of the development, no mitigation measures are required for archaeological, architectural and cultural heritage during the operational phase of the Proposed Development.

14.4.6 Decommissioning Phase Effects

There will be no significant potential impacts on the archaeological, architectural and cultural heritage environment during the decommissioning of the Proposed Development. Any potential direct impacts will already have been resolved through mitigation measures and the established access tracks will be used for the removal of the built features of the wind farm.

The decommissioning phase will utilise all existing internal site roads and public roads and will not involve any further ground disturbance. Turbines will be removed from site using the same transport methodology adopted for delivery to site initially.

14.4.7 Cumulative Effects

Cumulative impact is defined as 'The addition of many small impacts to create one larger, more significant, impact' (EPA 2017). Cumulative impacts encompass the combined effects of multiple developments or activities on a range of receptors. In this case, the receptors are the archaeological monuments and architectural/cultural heritage sites in the immediate vicinity of the Proposed Development.

Cumulative impacts on setting are more likely to occur at the operational stage of the development (i.e., post-construction) due to Proposed Development infrastructure (i.e wind turbines) being installed and therefore having a greater visual impact relative to the construction and decommissioning phases.

In order to assess overall cumulative effects on archaeology and cultural heritage the Proposed Development is considered in the context of other developments.

The present landscape of the Proposed Development predominantly comprises a managed commercial forestry. Other developments consist mainly of one-off housing and agricultural buildings.

One-off housing and buildings are not considered to be detrimental to the setting of archaeological monuments and will not contribute to cumulative effects occurring. Larger-scale project such as the aforementioned existing and proposed windfarms can contribute to the cumulative impact. Further details can be found in Technical Appendix 2-3 Cumulative Sites.

A review of operational, permitted and proposed wind farm developments within 30km of the Project was carried out to assess potential cumulative impacts on the cultural heritage resource (Table 14-16).

This included a review of the archaeological and cultural heritage impact assessments of these developments included in the online planning files published on the Cork County Council and Kerry County Council planning enquiry systems as well as the Excavations Database.

Table 14-16 Review of wind farms within 30km of the Project

Name	Status	Maximum blade tip height (m)	Number of turbines	Cultural Heritage Review
Knocknamork	Approved	150	7	A review of the Cultural Heritage Chapter in the EIAR prepared for this development was carried out. No direct impacts to any recorded or newly recorded constraints as a result of the Proposed Development were identified. When added to other projects in the vicinity including the Permitted Development (19/4972), a slight increase in cumulative impacts on setting may occur.
Coomacheo	Operational	121	15	Archaeological monitoring of the construction of this development in 2006 revealed nothing of archaeological significance
Gneeves	Operational	91	11	Archaeological monitoring of the construction of this development in 2004 revealed nothing of archaeological significance
Curragh	Operational	121	8	The Excavations Database does not contain any entries for this development. A review of the EIAR for the development revealed that its location does not contain any designated cultural heritage sites
Caherdowney	Operational	100	4	Archaeological monitoring of the construction of this development revealed nothing of archaeological interest and/or potential was noted.
Clydaghroe	Operational	100	5	The Excavations Database does not contain any entries for this

Name	Status	Maximum blade tip height (m)	Number of turbines	Cultural Heritage Review
				development. A review of the EIAR for the development revealed that its location does not contain any designated cultural heritage sites
Clydaghroe Extension	Approved	109.5	1	The Excavations Database does not contain any entries for this development. A review of the EIAR for the development revealed that its location does not contain any designated cultural heritage sites
Carrignaima Community Wind Farm	Operational	120	6	The Excavations Database does not contain any entries for this development.
Sillahertane	Operational	82.5	10	Archaeological monitoring of the construction of this development revealed nothing of archaeological significance
Inchincoosh	Operational	125	6	Archaeological monitoring of the construction of this development in 2008 revealed nothing of archaeological significance
Lettercannon	Operational	125	7	Archaeological monitoring of the construction of this development revealed nothing of archaeological significance ³⁵
Kilgarven	Operational	120	15	Archaeological monitoring of this development revealed nothing of archaeological significance ²⁵
Midas	Operational	125	6	The Excavations Database does not contain any entries for this development.
Foilegreana & Coolknoohil	Operational	125	6	Archaeological monitoring of the construction of this development in 2013 revealed nothing of archaeological significance
Derragh	Operational	150	6	A review of the Cultural Heritage Chapter in the EIAR prepared for this development was carried out and revealed that it was assessed to have no predicted direct or significant impacts on the cultural heritage resource. The assessment also concluded that the visual impacts on archaeological sites within the surrounding landscape would be slight in significance
Cleanrath	Operational	150	11	Archaeological testing and monitoring carried out as part of this development revealed nothing of archaeological significance
Bawnmore	Operational	127.5	5	The Excavations Database does not contain any entries for this

Name	Status	Maximum blade tip height (m)	Number of turbines	Cultural Heritage Review
				development.
Boggeragh 2	Operational	136.5	38	Archaeological monitoring of the construction of this development revealed nothing of archaeological significance
Boggeragh	Operational	120	19	Archaeological monitoring of the construction of this development revealed nothing of archaeological significance
Carraigcannon	Operational	100	10	
Shehy More	Operational	131	23	Archaeological monitoring of the construction of this development revealed nothing of archaeological significance
Kealkil	Operational	91	10	Archaeological monitoring of the construction of this development revealed nothing of archaeological significance
Garranereagh	Operational	70	4	Archaeological monitoring of the construction of this development in 2012 revealed nothing of archaeological significance
Knockacummer	Operational	125	29	Archaeological monitoring of the construction of this development in 2008 revealed nothing of archaeological significance
Taubeg	Operational	121	11	The Excavations Database does not contain any entries for this development.
Goulacullin	Approved	77	5	The Excavations Database does not contain any entries for this development.
WEDcross Wind Farm	Operational	120	2	The Excavations Database does not contain any entries for this development.
Glentanemacelli got	Operational	125	17	Archaeological monitoring of the construction of this development in 2009 revealed nothing of archaeological significance
Esk	Operational	136.5	14	The Excavations Database does not contain any entries for this development.
Mount Eagle	Operational	112	8	The Excavations Database does not contain any entries for this development.
Scartaglen	Operational	126.5	23	The Excavations Database does not contain any entries for this development.
Scartaglen Extension	Operational	126.5	10	The Excavations Database does not contain any entries for this development.

Name	Status	Maximum blade tip height (m)	Number of turbines	Cultural Heritage Review
Mount Eagle extension	Approved	81	2	The Excavations Database does not contain any entries for this development.
Coolleegrean	Operational	110	7	The Excavations Database does not contain any entries for this development
Coolknoohill and The Coom	Operational	86	4	Archaeological monitoring of this development revealed nothing of archaeological significance ²⁵
O'Donoghue wind farm	Operational	86	4	The Excavations Database does not contain any entries for this development.
McCarthy wind farm	Operational	86	3	The Excavations Database does not contain any entries for this development.
Midas extension	Approved	125	2	The Excavations Database does not contain any entries for this development.
Barnadivane resubmission	Approved	131	6	The Excavations Database does not contain any entries for this development.
Derreenacrinnig West	Approved	81	7	The Excavations Database does not contain any entries for this development.
Grousemont	Operational	126	38	The Excavations Database does not contain any entries for this development.
Carrigarierk	Operational	140	5	The Excavations Database does not contain any entries for this development.
Carrigarierk 2	Appealed	176.5	3	The Excavations Database does not contain any entries for this development.
Ballinagree	Application	185	20	The Excavations Database does not contain any entries for this development.
Gortyrhilly	Application	185	14	A review of the Cultural Heritage Chapter in the EIAR prepared for this development was carried out and revealed that it was assessed to have no predicted significant direct, indirect or cumulative effects on the Cultural Heritage. The assessment also concluded that the visual impacts on archaeological sites within the surrounding landscape would be slight in significance
Inchamore	Appealed	185	5	A review of the emerging layout of this development revealed no recorded cultural heritage assets located within its proposed footprint

Given the absence of significant direct impacts on the recorded cultural heritage resource arising from the Proposed Development, in combination with the results of the above review of cumulative 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.

It is noted that while the Proposed Development will result in an imperceptible indirect impact on the settings of (KE077-001----) the site of remains of a rectangular hut located within the Proposed Development Site.

However, none of the infrastructure of the Proposed Development is located within the environs of this monument or directly impinge on it. Given the distance from the Proposed Development of approximately 650m it is concluded that there will be no significant cumulative effects on this receptor as a result of the Proposed Development.

Cumulative Impacts (Direct)

The Proposed Development Site presently comprises commercial forestry lands which have already been directly impacted on through intensive planting and felling of forestry over the preceding decades.

The Proposed Development represents further and more intensive disturbance of some parts of these lands, though with a more localised direct impact to smaller areas for development rather than across the entirety of the application area.

The re-use of existing forestry roads for access and cabling helps to reduce any cumulative impacts within the landscape.

Given the sub-surface nature of any potential archaeological deposits that were not identified before the establishment of the current forestry plantations, the potential to record any previously unknown site during the construction phase will provide data to the archaeological community from any potential subsurface sites.

The potential to gain knowledge outweighs the negative impact of losing these sites through continued clear-felling. Furthermore, the implementation of mitigation measures for the Proposed Development will ensure that the cumulative effect is neutral.

The cumulative Knocknamork and Clydagroe Extension Underground Cable Routes pass through the Proposed Development site. Townland boundaries are ubiquitous in the Irish countryside, and have been incorporated into the modern agricultural landscape, and are subject to frequent changes in their surroundings.

In addition to this, many of the townland boundaries are formed by route of the modern roads, and thus remain intact. The townland boundaries will remain largely unchanged, and as a result, any impact would be localised and considered negligible.

In this regard direct **neutral** cumulative impacts will occur.

Cumulative Impacts (Indirect Impact on Setting)

The existing windfarms at Curragh/Coomacheo and Knocknamork, and the proposed windfarm projects at Gortyrhilly and Inse Mhór were identified for specific consideration from the list of developments to be considered for possible cumulative impacts (Technical Appendix 2-3 Cumulative Sites), owing to their proximity to the Proposed Development.

In the context of known sites of archaeological, architectural and cultural heritage sites with statutory or other protections, on CH001 falls within the Proposed Development Site. CH001 is situated in mature forestry with no zone of protection, and has no discernible above ground remains. No indirect cumulative impacts arising from the Proposed Development are predicted.

Curragh/Coomacheo Farm is visible from the eastern-most parts of The Paps Archaeological landscape, located to the northeast of the Proposed Development (Plate 27).

The Knocknamork windfarm development comprises a small windfarm with five turbines located immediately to the south of the Proposed Development. The topography of the surrounding landscape which rises to the south, and the location of Knockmork south of the summit of the hill, along with the current tree cover, largely obscures the view to the Knocknamork development, as viewed from the north.

The proposed Inse Mhór windfarm is located approximately 7.5 km to the southwest of the subject site, and largely obscured from view by the natural topography. The proposed Gortyrhilly windfarm is located approximately 9.5 km to the south of the subject site, and is again largely obscured from view by the natural topography. These therefore ruled out from the possibility of cumulative impact.

When the location of the Proposed Development is taken into consideration the overall **long-term, reversible, moderate, negative** effect on the archaeological landscape will increase, specifically in the southern and eastern portions of The Paps archaeological landscape.

However, it is noted that the Proposed Development does not impact upon the intervisibility between archaeological monuments within the archaeological landscape but have a long-term, reversible, moderate, negative indirect impact to setting only.

Outside of The Paps archaeological landscape, monuments are dispersed or at such a distance from the Proposed Development that there will be no impact on setting.

14.5 Residual Effects and Conclusions

This assessment has identified no likely significant direct effects (negative) from the Proposed Development on the receiving environment, given the layout and design and the mitigation measures recommended. The Proposed Development is located almost entirely within commercial forestry lands or upland blanket peat with potential for *in situ* archaeological deposits.

The Proposed Development will have a long-term negative moderate (indirect –visual) effect on the surrounding archaeological, architectural and cultural heritage landscape, specifically CH083 The Paps Archaeological Landscape.

The cumulative effects of the Curragh/Coomacheo and Knocknamork Windfarms, and the Proposed Development will have a likely long term negative slight indirect effect on the cultural environment.

In the event of new archaeological features being found, the Proposed Development will have a long term positive significant direct effect.

14.5.1 Proposed Mitigation/Monitoring

Mitigation Measures – Construction

As part of an advance works programme prior to construction, a combination of advance geophysical survey (where practical) and advance archaeological test trenching will be carried out by a suitably qualified archaeologist under licence, along the proposed grid connection cable route.

In addition, advance archaeological test trenching (where practical) will be carried out by a suitably qualified archaeologist under licence, along the proposed access route in the vicinity of CH078. Results from these archaeological works shall be compiled in a detailed report. This report will be submitted to the National Monuments Service (DHLGH).

A systematic advance programme of archaeological field-walking surveys will also be carried out within construction areas in forestry plantations following tree felling to confirm the conditions predicted in this assessment i.e., that they contain no visible surface traces of potential unrecorded archaeological or architectural heritage sites.

All ground disturbance associated with the construction of the Proposed Development will be monitored by a suitably qualified archaeologist working under licence as issued by the minister (DoHLGH) under section 26 of the National Monuments Acts (1994-2014).

In the event of archaeological features, finds and/or deposits being encountered during the monitoring, all relevant authorities will be notified immediately. Preservation *in-situ* or preservation by record (excavation) may be required.

Where groundworks have a direct effect on the Cummeennabuddoge/Clydaghroe townland boundary (CH057), a suitably qualified archaeologist will monitor excavation works and create a full descriptive, photographic and survey record of the CH site prior to the removal of any components. A report will be compiled on completion of the monitoring and sent to the Local Authority and National Monuments Service.

To partially offset the impact of the Proposed Development on the setting of the archaeological landscape, it is proposed to incorporate information boards on publicly accessible area within pertaining to the archaeological, architectural and cultural heritage historical of the Clydagh Valley as part of the development.

Mitigation Measures – Operation

Subject to the implementation of the appropriate archaeological mitigation measures during the construction phase of the development, no mitigation measures are required for archaeological, architectural and cultural heritage during the operational phase of the Proposed Development.

Mitigation Measures – Decommissioning

On decommissioning of the Proposed Development, it is proposed that, should turbine foundations remain in place they will be covered with earth and allowed to revegetate naturally.

Table 14-17: Residual Impacts to CH sites once mitigation measures have been implemented

CH No.	Phase	Impact Type	Mitigation Measures	Magnitude of Impact after implementation of mitigation measures	Significance of Impact after implementation of mitigation measures
CH001	Construction	Direct	To partially offset the impact of the Proposed Development on the setting of the archaeological landscape, it is proposed to incorporate information boards on publicly accessible area within pertaining to the archaeological, architectural and cultural heritage historical of the Clydagh Valley as part of the development.	Negligible	Negligible
CH057	Construction	Direct	Where groundworks have a direct effect on the Cummeennabuddoge/Clydaghroe townland boundary (CH057), a suitably qualified archaeologist will monitor excavation works and create a full descriptive, photographic and survey record of the CH site prior to the removal of any components. A report will be compiled on completion of the monitoring and sent to the Local Authority and National Monuments Service.	Minor	Negligible
CH078	Construction	Direct	A systematic advance programme of archaeological field-walking surveys will also be carried out within construction areas in forestry plantations following tree felling to confirm the conditions predicted in this assessment i.e., that they contain no visible surface traces of potential unrecorded archaeological or architectural heritage	Minor	Negligible

CH No.	Phase	Impact Type	Mitigation Measures	Magnitude of Impact after implementation of mitigation measures	Significance of Impact after implementation of mitigation measures
			sites.		
CH079	Construction	Direct	A systematic advance programme of archaeological field-walking surveys will also be carried out within construction areas in forestry plantations following tree felling to confirm the conditions predicted in this assessment i.e., that they contain no visible surface traces of potential unrecorded archaeological or architectural heritage sites.	Minor	Negligible
CH083	Operation	Direct	To partially offset the impact of the Proposed Development on the setting of the archaeological landscape, it is proposed to incorporate information boards on publicly accessible area within pertaining to the archaeological, architectural and cultural heritage historical of the Clydagh Valley as part of the development.	Moderate	Moderate

14.6 Summary and Statement of Significance

Technical Appendix 14-4 presents a tabulated summary of the assessment of effects on each of the CH site identified in this report, and the proposed mitigation measures.

This assessment has identified no likely significant direct effects (negative) from the Proposed Development on the receiving environment, given the layout and design of the Proposed Development and the mitigation measures recommended.

With the exception of CH001 (KE077-001—the site of remains of a rectangular hut), all sites with statutory or other designated protections are located outside the application area. The Proposed Development is predicted to have a long-term Negligible effect of no significance on extant recorded monuments.

CH083 -*The Paps Archaeological Landscape* borders the Proposed Development Site to the northwest. CH002-CH022, CH083 and CH0115-CH170 (all comprising RMPs sites

that are located within the study area) are also contained within *The Paps Archaeological Landscape*. No turbine effects the intervisibility between RMPs within the defined archaeological landscape area, and as such respects the character and integrity of the archaeological landscape.

Any visual impact will be with regard to setting, particularly as the landscape is viewed from the east and southeast, and views from the landscape to the east and southeast. Given that many of the designated cultural heritage sites in the wider landscape are already obscured from view by the natural topography, the visual impact of the Proposed Development is lessened to some degree.

It is also considered that this visual impact is reversible. However overall impact on designated cultural heritage sites within 5km is considered to be **Moderate**, largely owing to the proximity of The Paps Archaeological Landscape and the impact to setting of this landscape as it is viewed from the east and southeast, and views from the landscape to the east and southeast.

Three additional CH sites with no statutory protection were identified from cartographic sources and walkover survey within and immediately adjacent to the Proposed Development Site. These CH sites are considered to be of local heritage value and in this regard any potential impacts to the structures during cabling will be **Slight**.

It is noted that Proposed Development and elements of the supporting infrastructure are located in areas with a potential for previously unknown subsurface archaeology surviving *in-situ*. Mitigation measures have been recommended to avoid, reduce or offset any potential impacts to unknown archaeological deposits.

The cumulative effects of the Proposed Development and the adjacent Windfarms will have a likely long-term, reversible, moderate, negative visual effect on the cultural environment.

14.7 References

- Aalen, F.H.A. et al 1997 *Atlas of the Irish Rural Landscape*. Cork University Press
- Bielenberg, A. (1991) *Cork's Industrial Revolution 1780–1880*. Cork University Press, Cork.
- Cork County Council (2022) *Cork County Development Plan (2022-2028)*
- Department of Housing, Planning and Local Government (2018) *Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment*, Dublin
- Department of the Environment, Heritage and Local Government (2004) *Architectural Heritage Guidelines*. Stationery Office, Dublin.
- EirGrid (2015) *Cultural Heritage Guidelines for Electricity Transmission Projects. A stand approach to archaeological, architectural and cultural heritage impact assessment of high voltage transmission projects*. EirGrid, Dublin.
- English Heritage (2008) *Conservation Principles – Policies and Guidance for the Sustainable Management of the Historic Environment*. English Heritage, London
- EPA (2003) *Advice notes on current practice (in the preparation of Environmental Impact Statements)*. Environmental Protection Agency, Dublin.

EPA (2017) *Environmental Impact Assessment of Projects Guidance on the preparation of the Environmental Impact Assessment Report*, Dublin.

EPA (2022) *Guidelines on the information to be contained in Environmental Impact Statements*. Environmental Protection Agency, Dublin.

Geological Survey of Ireland 2019 Open topographic data viewer [online]. Available: <https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=b7c4b0e763964070ad69bf8c1572c9f5> [Accessed 23 November 2023]

Grogan, E. O. (2007). *The Bronze Age Landscapes of the Pipeline to the West*. Wicklow: Wordwell.

Hawkes, A. (2018) *The Archaeology of Prehistoric burnt Mounds in Ireland*. Oxford: Archaeopress.

Irish Townlands, The Irish OpenStreetMap Community. [online] Available: <https://www.townlands.ie> [Accessed 23 November 2023]

Kerry County Council (2022) Kerry County Development Plan (2022-2028)

Lewis, S.L. (1837) *The Topographical Dictionary of Ireland*

McCuthcheon, W. A. (1980) *The Industrial Archaeology of Northern Ireland*. Her Majesty's Stationery Office, Belfast.

National Monuments Service, 2016 National monuments – map viewer. Department of Arts, Heritage, Regional, Rural & Gaeltacht Affairs. [online] Available: <http://webgis.archaeology.ie/historicenvironment/> [Accessed 23 November 2023]

NRA (2005)a *Guidelines for the Assessment of Architectural Heritage Impacts of National Road Schemes*. National Roads Authority, Dublin.

NRA (2005)b *Guidelines for the Assessment of Archaeological Heritage Impacts of National Road Schemes*. National Roads Authority, Dublin.

O' Sullivan, A. (2001) *Foragers, farmers and fishers in a coastal landscape: an intertidal archaeological survey of the Shannon estuary (Discovery Programme Monograph 5)*. Dublin. Royal Irish Academy

O'Connor, K. (1998) *The archaeology of medieval rural settlement in Ireland*. Discovery Programme Monograph No. 3. Royal Irish Academy, Dublin.

Placenames Database of Ireland, 2016 Developed by Fiontar (DCU) and The Placenames Branch (Department of Arts, Heritage and the Gaeltacht). [online] Available: <http://www.logainm.ie/en/> [Accessed 23 November 2023]

Samuel Lewis, 1837, *A Topographical Dictionary of Ireland*. [online] Available: <http://www.libraryireland.com/topog/> [Accessed 23 November 2023]

Teagasc Soil Information System 2016 Teagasc and the Environmental Protection Agency (EPA) Science, Technology and Research & Innovation for the Environment (STRIVE) programme & Cranfield University [online] Available: <http://gis.teagasc.ie/soils/index.php> [Accessed 23 November 2023]

UNESCO (2009). *Framework for Cultural Statistics*. Available: https://uis.unesco.org/sites/default/files/documents/unesco-framework-for-cultural-statistics-2009-en_0.pdf [Accessed 14/12/2023]

Waddell, J. (2010) *The Prehistoric Archaeology of Ireland*, Third revised edition, Wordwell, Dublin. Dublin: Wordwell. Aalen, F.H.A. et al 1997 *Atlas of the Irish Rural Landscape*. Cork University Press