

Environmental Impact Assessment Report

# Cummeennabuddoge Wind Farm

Chapter 14: Archaeology, Architectural and  
Cultural Heritage (Resubmitted)

Cummeennabuddoge Wind (DAC)

March 2026



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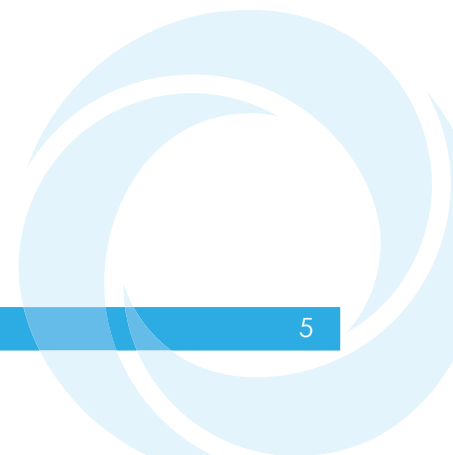
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## Glossary of Terms

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 boundary shown on Figure 1-1a
The Planning Act	Directive 2011/92/EU (as amended by Directive 2014/52/EU, the EIA Directive).
Study Area	Buffer around the proposed development which was examined to identify sites which indicate the archaeological potential

## List of Abbreviations

Abbreviation	Description
AAP	Areas of archaeological potential
ACA	Architectural Conservation Area
CH	Cultural heritage
DAHGI	Department of Arts, Heritage, Gaeltacht and the Islands
DHLGH	Department of Housing, Planning and Local Government
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
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 likely significant effects of the construction, operation and decommissioning of 17 wind turbines, associated infrastructure, associated infrastructure, an Underground Cabling route ('the UGC route') and a Turbine Delivery Route (the 'TDR') on the archaeological, architectural and cultural heritage environment. The Proposed Development is described in full in Chapter 4 of this EIAR.

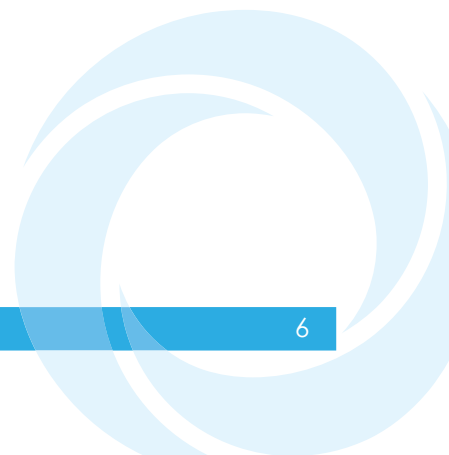
This study identifies the baseline archaeological, architectural and cultural heritage environment in order to evaluate the potential effects of the Proposed Development on this environment, and to provide mitigation measures to ameliorate these effects (if required) in accordance with the relevant policy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

#### 14.1.1 Statement of Authority

The initial chapter of the EIAR was prepared by Dr. Enda O'Flaherty (BA, H-Dip, PhD), during his time at Rubicon Heritage Services Ltd but he has since left the company. Dr O'Flaherty holds a BA in Heritage Studies from GMT, a Post-Graduate Diploma in Archaeology from NUIG and a PhD from NUIG. His PhD specialised in Landscape Archaeology and Cultural Landscapes of Historical Ireland. Mr O'Flaherty has worked as a professional archaeologist since 2006, and is a license-eligible archaeologist. He has undertaken impact assessments on other renewable energy projects such as Solar Farms. Example of works include Ballyloo Solar Farm and Lanesborough to Athlone 100 kV Line Uprate.

This chapter was updated by Rachel Morgan-James (BSc, MA) and Cíarraí O'Sullivan (BA, MPhil) of Rubicon Archaeology Limited. Mrs Morgan-James holds an MA in Conservation Studies (Historic Buildings) from the University of York and a BSc in Archaeology from Cardiff University. She has worked in the commercial heritage sector since 2002 and had managed and authored numerous cultural heritage environmental impact assessment report chapters, desk-based assessments, and heritage impact statements. Example of works include Park Solar Farm and Rathcoon Solar Farm.

Ms O'Sullivan holds an MPhil in Archaeology and BA in Archaeology from University College Cork. Her MPhil specialised in Landscape Archaeology and territories of early medieval Ireland. She has been working in the field of archaeology since 2017. Cíarraí O'Sullivan is a consultant archaeologist, having produced impact assessments on a broad range of developments including solar farms, grid connections and overhead lines.



## 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:

- 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';
- Department of Housing, Planning and Local Government (2018) Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment
- EirGrid (2015) Cultural Heritage Guidelines for Electricity Transmission Projects.
- European Commission (2017): Guidance on the preparation of the EIAR
- Environmental Protection Agency (2022) 'Guidelines on the information to be contained in Environmental Impact Assessment Reports (EIAR)'
- International Council on Monuments and Sites (2011) Guidance on Heritage Impact Assessments for Cultural World Heritage Properties
- Office of the Public Regulator (2022) *A Guide to Architectural Heritage*
- Office of the Public Regulator (2021) *Archaeology in the Planning Process*;
- The Heritage Council (2013) *The Onshore Wind Farm Sector In Ireland Planning In Harmony With Heritage: Policy Research Pape*
- Transport Infrastructure Ireland 2025 Guidelines for Cultural Heritage Impact Assessment of TII National Road and Greenway Projects

This assessment comprehensively assesses the Proposed Development to determine the likely significant effects 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 Terminology

This section provides a brief explanation of the terminology that will be used throughout this assessment

- 1) Cultural Heritage Receptor:** The UNESCO definition of Cultural Heritage has been used throughout this chapter to define Cultural Heritage Receptors (CH Receptors), which is follows:

*“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).*

- 2) **Proposed Development:** Used to refer to Cummeennabuddoge Wind Farm, which comprises the 17 wind turbines, associated infrastructure, an Underground Cabling route ('the UGC route') and a Turbine Delivery Route (the 'TDR').
- 3) **Proposed Development Site:** 'The Proposed Development Site' is an area of land encompassing all the proposed infrastructure associated with the Proposed Development.
- 4) **Study Area:** A defined buffer around the Proposed Development Site which was used to compile and examine cultural heritage receptors which could be potential impacted by the Proposed Development.

## 14.2.2 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 2011/92/EU as amended by 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 aspects 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;
- 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.

### Convention for the Protection of the Archaeological Heritage of Europe (revised) (Valletta convention)

The Valletta Convention was adopted on the 16 January 1992, and it was ratified by Ireland in 1997. The aim of the Convention is to *'protect the archaeological heritage as a source of the European collective memory and as an instrument for historical and scientific study'* (Article 1).

The convention provides the basis for all national policy on the protection of the archaeological heritage, and forms the basis of guidelines such as the Frameworks and Principles for the Protection of the Archaeological Heritage. In summary the obligations on the State under the Convention relate to the following:

- providing for statutory protection measures, including the maintenance of an inventory of the archaeological heritage and the designation of protected monuments and areas;
- the authorisation and supervision of excavations and other archaeological activities;
- providing measures for the physical protection of the archaeological heritage, including (as necessary) acquisition or protection by other means by public authorities of areas intended to constitute archaeological reserves, conservation and maintenance of the archaeological heritage (preferably in-situ), and the provision of appropriate storage places for archaeological remains removed from their original locations;
- providing for consultation between archaeologists and planners in relation to the drawing up of development plans and development schemes so as to ensure that full consideration is given to archaeological requirements;
- providing public financial support for archaeological research and public or private financial support (as appropriate) for rescue archaeology;
- facilitating the study of archaeological discoveries by making or bringing up to date surveys, inventories and maps of archaeological sites and taking practical measures to ensure the drafting, following archaeological operations, of a publishable scientific record before the publication of comprehensive studies;

- facilitating national and international exchanges of elements of the archaeological heritage for scientific purposes, promoting the pooling of information on archaeological research and excavations, and contributing to international research programmes;
- educating the public in relation to the value of the archaeological heritage and the threats to it, promoting public access to important elements of this heritage, and encouraging public display of selected archaeological objects;
- preventing the illicit circulation of elements of the archaeological heritage, including co-operating with other states party to the Convention; and
- providing for the exchange of information and experts on the archaeological heritage between states party to the Convention.

## Archaeological Monuments/Sites

### National Monument Acts 1930–2014

Archaeological heritage is currently protected primarily under the National Monuments Acts 1930-2014 (National Monuments Acts). Section 2 of the National Monuments Acts 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 National Monuments Acts, 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 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
- 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 Acts 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.'*

#### *The Heritage Act 1995 and 2018*

The Heritage Act 1995, amended in 2018 defines archaeology as 'the study of past human societies, either as a whole or of various aspects of them, through the material remains left by those societies and the evidence of their environment, and includes the study of, searching and prospecting for:'

- a) archaeological objects,
- b) monuments,
- c) buildings, or parts of any buildings, habitually used for ecclesiastical purposes,
- d) landscapes,
- e) seascapes,
- f) wrecks,

The Act also established the Heritage Council, and outlines its role and function.

#### *Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023*

In 2023, the Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023, was passed by the House of the Oireachtas. It is currently being enacted on a phased basis, with sections of Parts 1-13 having commenced, while others have not commenced yet. Once fully enacted, this Act will repeal the existing National Monuments Acts 1930–2014, and it will be the primary legislative protection for historic and archaeological heritage in Ireland. The Act will introduce a range of novel provisions designed to provide for the protection and conservation of Ireland's archaeological heritage.

Part 2 of the Act, which is not yet commenced, is concerned with archaeological monuments. The act will introduce measures such as :

- Newly discovered archaeological sites will be afforded immediate legal protection, mirroring the existing system for archaeological objects and historic wrecks that are automatically protected without a need for formal designation or registration
- Statutory reporting scheme for finds of monuments
- a new 'Register of Monuments' will be established, replacing several overlapping designation and registration systems currently in operation. The current chapter was compiled using these designations and registrations systems

### Archaeological artefacts

#### *National Monument Acts 1930–2014*

National Monuments Acts 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.

National Monuments Acts 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.

*Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023*

Part 4 of the *Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023* is concerned with Archaeological Objects. Chapters 1–8, 10 of Part 4 has not yet commenced while Chapters 9 and 11 have.

*National Cultural Institutions Act 1997*

The National Cultural Institutions Act is maintaining, managing, controlling, protecting, preserving, recording, conducting research and enlarging the collection of museum heritage objectives for the benefit of the public.

**Kerry County Development Plans (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 authority's 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 incorporates aims, objectives, policies and guidelines to provide for the proper planning and sustainable management of the archaeological, architectural and cultural landscapes 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 of these policies and objectives in this report. Sections 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 KDCP 8-23 to KCDP 8-43 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 Plans (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.

#### 14.2.3 Desktop Study

This assessment is based on a desktop study, which was undertaken using best practice. It involved the examination of a number of documentary and cartographic source. 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 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;
- Aerial Photographs.

#### 14.2.4 Study Area

A 5 km study area around the Proposed Development Site was chosen for this assessment. This includes proposed wind turbines, associated infrastructure and the UGC. Cultural heritage receptors, which included designated archaeological and architectural sites, were identified within this study area. This size study area was chosen due to two factors:

- the ability of cultural heritage receptors to provide information pertaining to the archaeological potential of the Proposed Development site, and
- the potential physical impacts, as well as impacts on setting, that the proposed wind turbines, associated infrastructure and the UGC route may have on cultural heritage receptors.

The second factor was based on the Zone of Theoretical Visibility, and the potential of the turbines to be visible from cultural heritage receptors within 5 km.

A second study area of 10 km around the Proposed Development Site was chosen to determine the presence of internationally and nationally significant cultural heritage assets i.e. National Monuments in State Care and World Heritage sites (including tentative sites). Only these sites were included in the 10 km study area due to their significance and greater heightened visual sensitivities.

It was determined that the 5 km study would not be extended to a 10 km study area to include all cultural heritage receptors. This was deemed unnecessary based on the results of the ZTV and field inspections, which found that areas greater than 5 km from the Proposed Development Site would have only intermittent views of the site and therefore effects on these CH receptors would be negligible owing to the distance. This approach allowed focus on the nationally and internationally significant sites.

The Proposed Development Site was assessed for undesignated cultural heritage (UCH) receptors that fall within the site boundary. This included unregistered features of cultural heritage and townland boundaries. In regard to Areas of Archaeological Potential (AAP), the study area included the respective townland incorporated by the Proposed Development Site and adjoining townlands. These defined study areas were chosen for these categories of sites due to the potential of direct impact of the Proposed Development on the UCH sites.

A 15 m study area was established around the proposed 'TDR', encompassing the extent of route following the N28, N40, N22 and the local road. This was chosen to identify only designated archaeological and architectural receptors with upstanding remains, which could be potentially impacted by Heavy Good Vehicles (HGVs) and abnormal loads (such as turbines) using the roads. Cultural Heritage Receptors with no upstanding remains within the route corridor were not included. This is because it was determined that they had been revealed and excavated in advance the construction of the roads, and had been resolved.

In addition, a separate 50 m study area was established around the 'clashing areas' along the proposed 'TDR' to identify designated archaeological and architectural receptors along with previous excavations. This was chosen to identify sites that could be potentially impacted by the proposed clashing areas.

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; World Heritage sites (including tentative sites).	Within approx. 10 km Proposed Development Site Within approx. 15 m of the proposed TDR Within approx. 50 m of the proposed clashing areas
Recorded archaeological monuments (RMPs)	Within approx. 5 km Proposed Development Site Within approx. 15 m of the proposed TDR Within approx. 50 m of the proposed clashing areas
Protected Structures and/or their curtilage	Within approx. 5 km Proposed Development Site Within approx. 15 m of the proposed TDR Within approx. 50 m of the proposed clashing areas
Architectural Conservation Areas (ACAS)	Within approx. 5 km of Proposed Development Site Within approx. 15 m of the proposed TDR Within approx. 50 m of the proposed clashing areas
Structures recorded in the NIAH register	Within approx. 5 km of Proposed Development Site Within approx. 15 m of the proposed TDR Within approx. 50 m of the proposed clashing areas
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 approx. 5 km of Proposed Development Site Within approx. 50 m of the proposed clashing areas
Topographical files	Within approx 5 km of the Proposed Development Site

### 14.2.5 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 30<sup>th</sup> 2022. Since the completion of the walkover, all three individuals have left the company.

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. During his time at Rubicon Heritage Services, Mr Miller was a graphic supervisor, and was also involved in site work such as field inspections, monitoring and testing.

Ewelina Rondelez received a 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. Ms Rondelez is a licence eligible archaeologist and led excavations during her time at Rubicon Heritage Services. She was also in charge of archives during her tenure at the company.

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 were 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).

### 14.2.6 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"> <li>• Recorded Archaeological Monuments</li> <li>• Protected Structures</li> </ul>	Very High

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

### 14.2.7 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.

### 14.2.8 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"> <li>• 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.</li> <li>• 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.</li> </ul>
Significant	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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 mitigation is likely to reduce the impact</li> <li>• 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.</li> </ul>
Moderate	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• 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.</li> <li>• 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.</li> </ul>
Slight	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• 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.</li> </ul>
Not Significant	<ul style="list-style-type: none"> <li>• An impact on archaeological features or monument capable of measurement but without noticeable consequences.</li> <li>• An impact on architectural heritage of local importance that is capable of measure merit but without noticeable consequences.</li> </ul>
Imperceptible	<ul style="list-style-type: none"> <li>• An impact on archaeological features or monument not measurable and has no noticeable consequences</li> </ul>

Impact Magnitude	Criteria
	<ul style="list-style-type: none"> <li>An impact on architectural heritage of local importance that is not measurable and has no noticeable consequences.</li> </ul>

### 14.2.9 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	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

Factor	Discussion
impacts	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.

### 14.2.10 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 TII 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
<b>Profound</b>	Profound negative	Significant negative:	Moderate negative	Slight negative	Imperceptible negative
<b>Significant</b>	Significant negative:	Significant negative:	Moderate negative	Slight negative	Slight negative
<b>Moderate</b>	Moderate negative	Moderate negative	Slight negative	Slight negative	Imperceptible negative
<b>Slight</b>	Moderate negative	Slight negative	Slight negative	Imperceptible negative	Imperceptible negative
<b>Not significant</b>	Slight negative	Slight negative	Imperceptible negative	Imperceptible negative	Imperceptible negative

Magnitude of Impact	Baseline Value				
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.

### 14.2.11 Limitations of this EIA Chapter

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

### 14.2.12 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 (taken from Chapter 2)	Where addressed within this Report
Kerry County Council - County Archaeologist	Impact of protected archaeological landscape to be assessed.	Addressed in 14.4.4
Kerry County Council - Planning	<ul style="list-style-type: none"> <li>• Outside area zoned as 'Open to Consideration' in the Renewable Energy Strategy</li> <li>• Within an area identified as a secondary Special Amenity Area</li> </ul>	Addressed in 14.4.4
Cork County Council	<ul style="list-style-type: none"> <li>• Confirmed approach is acceptable</li> <li>• Preference for grid connection to be underground</li> <li>• Suggested reference is made to Judicial Review overturning permission for Derryadd Windfarm (SID - APB) [2020 No. 55571</li> </ul>	Addressed in 14.4.3 by assessing impact of grid connection

## 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. The proposed UGC follows one of the existing forestry for c.400 m before leaving to cross through wetland to reach the existing Ballyvouskill 220kV Substation. 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.

The proposed TDR begins in the Ringaskiddy in Cork Harbour, and it follows the N28, crossing through rural and urban environment. From the N28, it then follows the N40, through the south side of Cork City, which is densely populated, until it reaches the N22. It then follows N22 travels to the Kerry border, bypassing Macroom, Ballyvourney and Ballymakeery. The environment surrounding the N22 is more rural with dispersed settlement.

### 14.3.2 Receiving Environment

The Proposed Development consists of 17 turbines and associated infrastructure (substation, grid connection route) and other enabling works (borrow pits, peat storage areas, site delivery route etc.)(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 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 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 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.	521147	583649

Turbine No.	Plate ref:	Townland	Landcover	Features identified during inspection	ITM_E	ITM_N
				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 4 was inspected on May 11th 2021. No features of archaeological 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, approximately 730m east of CH060 (UCH001) a vernacular building and associated field system. 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 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 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	520298	583550

Turbine No.	Plate ref:	Townland	Landcover	Features identified during inspection	ITM_E	ITM_N
				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 or cultural significance 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 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. . No features of archaeological or cultural significance were identified during the field inspection.	519746	583004
10	Plate 9	Clydaghroe	Mature forestry	The proposed location for Turbine 10 is located within the townland	519578	583406

Turbine No.	Plate ref:	Townland	Landcover	Features identified during inspection	ITM_E	ITM_N
				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 was inspected on May 12th 2021. No features of archaeological 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. No features of archaeological or cultural significance were identified during the field inspection.	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. No features of archaeological or cultural significance were identified during the field inspection.	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	518725	583485

Turbine No.	Plate ref:	Townland	Landcover	Features identified during inspection	ITM_E	ITM_N
				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 or 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 13 was inspected on May 12th 2021. No features of archaeological 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 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	517771	582024

Turbine No.	Plate ref:	Townland	Landcover	Features identified during inspection	ITM_E	ITM_N
				heavily disturbed by commercial forestry activity. The proposed location for Turbine 16 was inspected on May 12th 2021. No features of archaeological or cultural significance were identified during the field inspection.		
17	Plate 14	Clydaghroe	Cleared forestry	The proposed location for Turbine 17 is located within the townland of Clydaghroe to the north the summit 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 or cultural significance were identified during the field inspection.	517588	582429

### 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 widening
1	Loughbeg	X	X	X	
1B	Barnahely	X		X	

Junction ID*	Townland	Temporary street furniture dismantling	Vegetation clearance	Temporary stone placement on splitter island/verge	Temporary Road widening
2	Ballintaggart & Barnahely	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 30<sup>th</sup> 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 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 30<sup>th</sup> 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 to 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 grid connections, 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 grid connection cabling to the onsite substation. 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.

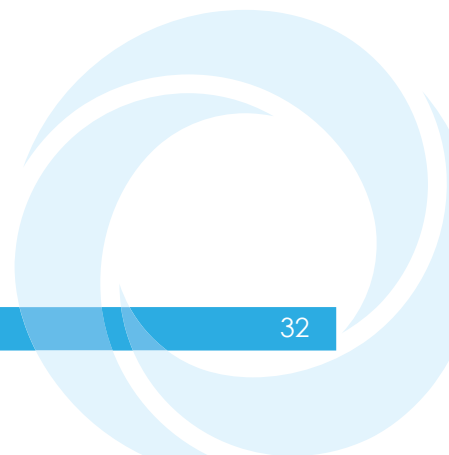
A Supervisory Control and Data Acquisition (SCADA) system will be installed to gather information from the turbines and to enable the turbines to be controlled from an external location. A fibre optic communications cable will be laid adjacent to the power cables in the same cable trench to link the turbines to the SCADA system. This network will be located entirely within existing forestry lands which comprise newlyplanted 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 boundary 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 5 km study area 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 within the 5 km study area of the Proposed Development. 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 a 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 5 km study area, 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;
- (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;

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

- Excavation at Slievereagh 1, (E004903) as part of the N22 *Baile Bhuirne*–Macroom 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 Slievereagh 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.
- Excavation at Killeen 3 was undertaken as part of the N22 *Baile Bhuirne*–Macroom Road Scheme (Lot 3) Archaeological Consultancy Services Contract, recorded the remains of a burnt mound and associated features, including a trough, which contained stakeholes, and a pit.

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 Slievareagh;

- (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 Gneeves 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 Gneeves 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 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 Knockabro. 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 receptors 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	Derry 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
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
Currahill	Curra Chathail	Cahill's moor	Natural landscape feature/historic familial association	No
Adivale	Eadarghabháil	Between the	Natural landscape	No

Townland	Irish Name	Derivation	Comments	Within Proposed development site
		forks, or central forks	feature	
Gneeves	Na Gríomha	A gneeve is the twelfth part of a ploughland	Reference to local historic/prehistoric settlement	No
Curragh	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
Garraneycarney	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](http://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 5 km study of the proposed development and 50 m study area of the Clash areas along the proposed TDR

The database produced 22 examples of archaeological excavations undertaken within the defined study areas, 12 of which did not identify archaeological deposits (see also Appendix 10-2).

The most prestigious investigations were those carried out in 2001 at the cairn and hut sites located on the 'Western Pap', in the adjoining townland of Derrynafinnia (01E0837). This is located c. 3.5 km north of the Proposed Development site.

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 Slievereagh as part of the N22 Baile Bhuirne-Macroom Road Scheme (Lot 1) Archaeological Consultancy Services Contract in 2017/18.

Excavation at Slievereagh 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 Slievereagh 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 19<sup>th</sup>-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 145 recorded archaeological monuments (CH001–CH046; CH075, CH089–CH186) within the 5 km study areas. A further five recorded monuments (CH187–CH190, CH195) were identified within the 10 km study area, of which four are also National Monuments (CH187–CH190). There is a single recorded monument (CH215) within the 50 m study area of Clashing Area, which bring the total to 150. These are summarised in Table14-11 below.

None of the recorded monuments are within the Proposed Development site. The closest receptor to the wind turbines is CH001 (Hut Site; KE077-001----), which is located c. 266 m south of the site boundary. 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. The closest receptor is CH075, which is a *fulacht fia* located c. 226 m west of the proposed Access Route.

Finally, the site boundary for the Junction at Hilltown and Shanbally partially crosses the zone of notification for levelled ringfort (CH215), located c. 82 m north-east of the boundary. The zones do not define the exact extent of the monuments but rather are intended to identify them for the purposes of notification under Section 12 of the National Monuments Act (1930–2004): each is referred to as a 'zone of notification'. If it is intended to carry out works within a Zone of Notification, two months' prior notice in writing to the Minister for Minister for Housing, Local Government and Heritage must be given, even if planning permission is not needed for the works. Works undertaken through the planning process is via a formal notification mechanism and acts as notification in accordance with Section 12 of the National Monuments Act.

**Table 14-11: Recorded monuments incorporated by 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	Adrivalle
CH026	CO048-003002-	Souterrain	Adrivalle
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.)

CH. No.	ID	Summary	Townland
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
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
CH075	KE076-086---	Fulacht Fia	Cummeenavrick
CH089	CO048-002----	Fulacht fia	CAurrachcahill
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

CH. No.	ID	Summary	Townland
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	Gortderrig
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
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	Derrynafinnia
CH142	KE076-019----	Cairn - unclassified	Derrynafinnia, Gortderrig
CH143	KE076-040001-	Hut site	Derrynafinnia
CH144	KE076-040002-	Hut site	Derrynafinnia
CH145	KE076-040003-	Hut site	Derrynafinnia
CH146	KE076-040004-	Hut site	Derrynafinnia
CH147	KE076-040005-	Hut site	Derrynafinnia
CH148	KE076-040006-	Standing stone	Derrynafinnia
CH149	KE076-040007-	Hut site	Derrynafinnia
CH150	KE076-040008-	Hut site	Derrynafinnia
CH151	KE076-046----	Hut site	Derrynafinnia

CH. No.	ID	Summary	Townland
CH152	KE076-047----	Field boundary	Derrynafinnia
CH153	KE076-058----	Country house	Glashacormack
CH154	KE076-067----	Kiln - lime	Derrymaclavode
CH155	KE076-068001-	Hut site	Derrynafinnia
CH156	KE076-068002-	Hut site	Derrynafinnia
CH157	KE076-068003-	Hut site	Derrynafinnia
CH158	KE076-068004-	Field boundary	Derrynafinnia
CH159	KE076-069----	Fulacht fia	Derrynafinnia
CH160	KE076-071----	Redundant record	Derryreag
CH161	KE076-083001-	Hut site	Derrynafinnia
CH162	KE076-083002-	Hut site	Derrynafinnia
CH163	KE076-083003-	Hut site	Derrynafinnia
CH164	KE076-083004-	Hut site	Derrynafinnia
CH165	KE076-083005-	Hut site	Derrynafinnia
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	Carrigacooleen
CH173	CO048-104----	Enclosure	Carrigacooleen
CH174	CO048-142----	Fulacht fia	Glantane East
CH175	CO048-159----	Earthwork	Carrigacooleen
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	Garraneycarney
CH185	CO059-007----	RATH	Garraneycarney
CH186	CO059-008----	RATH	Garraneycarney
CH187	CO039-078001-	Castle - tower house	Drishane More
CH188	CO048-095002-	Stone Circle	Knocknakilla
CH189	CO070-016----	Stone Circle	Lissacresig
CH190	CO070-017----	Ringfort - rath	Lissacresig
CH215	CO087-116----	Ringfort - rath	Hilltown

## 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 four National Monuments within the 10 km study area, on the Cork Side of the border. The closest National Monument is Knocknakilla Stone Circle (CH0188) located 6.6 km east of the Proposed Development site.

**Table 14-12: National monuments incorporated by the study area**

CH. No.	ID	Summary	Townland
CH187	Nat. Mon. 296	Castle - tower house	Drishane More
CH188	Nat. Mon 420	Stone Circle	Knocknakilla
CH189	Nat. Mon 571	Stone Circle	Lissacresig
CH190	Nat. Mon 571	Ringfort - rath	Lissacresig

## Sites with Preservation Orders

The National Monuments Act 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.

## National of Museum of Ireland Topographical Finds

The National Museum of Ireland Topographical finds database was consulted to see if there was a record of an archaeological object within the study area. The database is a representation of the distribution of archaeological objects at a local and national level, based on the Irish Antiquities Division's Collections Database. 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. The database produced three results for the 5 km study area. The closest find is a polished stone axehead, CH074 found c. 190 m south of the Proposed Development site.

**Table 14-13 National Museum of Ireland Topographical Finds within the study area**

CH. No.	ID	Summary	Townland
CH074	N/A	Polished Stone Axehead	Clydaghroe/ Coomnaclohy
CH213	1930:502	Bronze Axehead	Derreenaling
CH214	1932:7210	Bronze Axehead	Cappagh East

### Archaeological Landscapes

The KCDP 2022–2028 lists 19 very significant archaeological landscapes around the County. The development plan states the landscapes are listed for special protection, and there is a special emphasis on objectives that protect the monuments, their landscape setting and also their visual aspect and monument intervisibility (Kerry County Council 2022).

There is a single archaeological landscape, CH083, within the study area, which is the largest and most significant of the landscapes. This is the Paps, which is described by the development plan as '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 hutsites, 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 (Kerry County Council 2024).

**Table 14-14 Archaeological landscapes within the study area**

CH. No.	ID	Summary	Townland
CH083	Archaeological Landscape 13	The Paps	Annaghbeg, Annaghmore, Doocarrig More, Gortacoreen, Gortderrig, Shrone More, Shrone Beg, Gortnagane, Raheen, Awnaskirtaun, Knockabro, Knockagowan, Derrynafinnia, Derrymaclavlude, Killeen, Carrigaveema & Coolcurtoga.

### Protected Structures

The Cork County Development Plan (CCDP) 2022–2028 and KCDP 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 three Protected Structures within the 5 km study area, on the Cork side of the border. One, CH084, is also listed in the NIAH register. Neither are located within the Proposed Development site with the closest receptor situated c.4.8 km south-west of the Proposed Development.

**Table 14-15 Protected Structures within the study area**

CH. No.	ID	Summary	Townland
CH084	RPS No. 00366	Bridge (1810 - 1850)	Gortnatubbrid, Slievereagh
CH212	RPS No. 00368	Slievereagh Ornamental Tower	Ballyvourney
CH217	RPS No.1252	Cloghboola National School (1802)	Cloghboola

### Architectural Conservation Areas

The CCDP 2022–2028 and KCDP 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 five structures (CH084–CH088) listed in the NIAH register within the 5 km study area. None are located within the proposed development site with the closest site being CH084, situated c.4.5 km south. In addition, there are three structures listed in the NIAH register (CH207, CH0208, CH211) located within 15 m of the Proposed TDR.

**Table 14-16 NIAH registrations within the study area**

CH. No.	ID	Summary	Townland
CH084	20905805	Bridge (1810 - 1850)	GORTNATUBBRID, SLIEVEREAGH
CH085	20905806	School (1925 - 1945)	SLIEVEREAGH
CH086	20905812	Home Farm (1820 - 1860)	Baile Bhuirne [Ballyvourney]

CH. No.	ID	Summary	Townland
CH087	20905811	House (1850 - 1890)	FLATS
CH088	20905810	Bridge (1780 - 1820)	FLATS,GLEBE,GORTNATUBBRID
CH207	20907221	House	CURRAHALY
CH208	20908326	Gates/railings/walls	INCHIRAHILLY
CH211	20987029	Church/chapel	SHANBALLY

### 14.3.8 Undesignated cultural heritage receptors

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 receptors that comprise extant remains

Undesignated cultural heritage receptors 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 receptors 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 marked on the First Edition 6-inch Ordnance Survey sheet, with adjacent 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 receptors 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 a single known undesignated cultural heritage receptors that does not comprise extant remains located with the study area.

CH082 represents a single lime kiln marked on First Edition 25-inch Ordnance Survey Sheet - No above surface trace remains.

### Townland boundaries

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

**Table 14-17: 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 Gneeves 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
CH055	TB009	Townland boundary between Coomnaclohy and Cummeennabuddoge
CH056	TB010	Townland boundary between Coomnaclohy and Clydaghroe
CH057	TB011	Townland boundary between Clydaghroe and Cummeennabuddoge
CH058	TB012	Townland boundary between Clydaghroe and Slieveragh
CH059	TB013	Townland boundary between Glashacormick and Clydaghroe

### 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.

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

**Table 14-18: 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/Clydaghroe
CH063	A point at which a small unnamed tributary enters the Clydagh River. Rivers are areas of high archaeological potential	Yes	Clydaghroe
CH064	A point at which a small unnamed tributary enters the Clydagh River. Rivers are areas of high archaeological potential	Yes	Clydaghroe

CH No	Description	Within proposed development Site	Townland
CH065	A point at which a small unnamed tributary enters the Clydagh River. Rivers are areas of high archaeological potential	Yes	Clydaghroe
CH066	A point at which a small unnamed tributary enters the Clydagh River. Rivers are areas of high archaeological potential	Yes	Clydaghroe
CH067	A point at which a small unnamed tributary enters the Clydagh River. Rivers are areas of high archaeological potential	Yes	Cummeennabuddoge
CH068	A point at which a small unnamed tributary enters the Clydagh 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	Clydaghroe/ Coomnaclohy
CH079	Unnamed Stream located adjacent to proposed delivery access route	No	Cummeenavrick
CH216	Bog depicted on the 6-inch OS map, and which is covered by forestry today.	Yes	Cummeennabuddoge

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 forest with clear-felling and drainage activity continuing.

Potential impacts to sub-surface archaeology (if present) could continue to occur if any groundworks took place as part of the management of the forest. Indirect effects

on Additional 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 receptor 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.

### Turbines

The proposed development comprises 17 Turbines, which will be installed using large all terrain cranes. The use of the cranes and the erection of the turbines will be visible from the cultural heritage receptors within the proposed development. In addition, there will be an increase in vehicular traffic during construction, including construction traffic and HGVs delivering the turbines.

The closest Recorded Monument to the wind turbines is CH001 (RMP KE077-001---- a hut site) ----), which is located c. 266 m south of the site boundary. However, while the construction works will be visible from the site of the hut, there is no above surface trace of this RMP surviving. As a result, the indirect impact on the setting of the RMP during construction works is considered imperceptible.

The ZTV analysis in Section 14.4.4 highlighted that the turbines would be visible from the Paps Archaeological Landscape (CH083) and 53 recorded monuments within the landscape (CH002–CH020, CH022, CH135–CH152, CH154–CH159, CH161–CH169, CH195). It also found that the turbines will be visible from 24 recorded monuments outside of the Paps Archaeological Landscape (CH021, CH037, CH040–CH046, CH075, CH092–CH093, CH095, CH098–CH100, CH160, CH153, CH171–CH176). The ZTV analysis also showed that the turbines will be visible from one Protected Structure (CH212) and four NIAH registrations (CH085–CH088).

It is possible that the construction activities will also be visible from these receptors. As a result, the proposed construction activities will have indirect impact on the setting of the cultural heritage receptors. However, the construction activities are short term as they are expected to last for two years, with the use of the cranes occurring only for nine months. For this reason, the indirect effects of the construction activities were judged to be imperceptible.

In addition, the hydrology chapter (Chapter 10) notes that the peat will be impacted by the foundation for the turbines and additional infrastructure, including potential localised alteration to the groundwater regime during construction of the foundations. The peat is an area of archaeological potential, where there is the possibility for subsurface archaeology. Changes in the peat and the groundwater could have an indirect effect on this potential subsurface archaeology by impacting preservation.

### Additional infrastructure

Additional excavations will be undertaken for infrastructure such as access tracks (including grid connection service track), compounds, grid connection cable trenches general areas of hardstanding, drainage, met mast and the substation compound. The hydrology chapter (Chapter 10) also notes that the excavation work associated with

these activities could have potential impact on the peat. This in turn could have an indirect impact on CH216 as it may impact the preservation of unknown subsurface archaeology.

### 14.4.3 Construction Phase Potential Effects (Direct)

Direct Impact refers to a 'physical impact' on a monument or site. This section will consider the site layout and design to determine potential direct effects on the Cultural Heritage receptors. The construction phase of the development consists largely of earthmoving activities such as peat and topsoil removal.

#### Turbines

The proposed development comprises 17 Turbines and associated hardstands. Subsurface groundworks during construction include the excavation of foundation trench for the turbines. The foundation size is 22 m in diameter for each turbine, and 5 m in depth. The erection of turbine will involve cranes, and this will require the construction of 17 areas of hardstanding to provide a solid operating base.

The proposed excavation works associated with the turbines will have a direct impact on CH216, the blanket peat bog, which is an area of archaeological potential, meaning that there is the possibility of unknown subsurface archaeology. This a potential permanent, physical, direct impact on the subsurface archaeology, and for this reason, the magnitude of impact was judged to be significant.

Furthermore, the excavation works for Turbine 11 will have direct impact on CH064, which is an area of archaeological potential. There is the potential permanent, physical, direct impact and for this reason, the magnitude of impact was judged to be significant.

In addition, the excavation works for Turbine 6 will have a permanent, direct effect on the townland boundary between Clydaghroe and Cummeennabuddoge (CH057). The magnitude of impact was deemed to be moderate as only portions of the townland boundary will be broken, while the remainder of the townland boundary will remain unchanged.

#### Borrow Pits

Other subsurface works include four borrow pits, which will provide the majority of all rock and hardcore required during construction. The borrow pits will be dug to a depth of 5 m and the area size will range from c. 16 m<sup>2</sup> to 38 m<sup>2</sup>. The proposed borrow pits will have a direct impact on CH216, and a significant impact was assigned due to the reasons outlined above. In addition, the proposed borrow pit 3 will have a permanent, direct effect on CH057, which was assigned to moderate impact level due to the reasons outlined above.

#### Substation and Grid Connection

The proposed development also comprises a connection to the national grid via a 110kV underground cable from the proposed on-site substation. The construction and exact layout of electrical equipment in the onsite electricity substation is to EirGrid specifications. The proposed substation will have a permanent, direct impact on CH216.

The proposed UGC route is 3.6 km long, and the majority is within existing forestry/agricultural access tracks and will traverse adjacent to existing ESB utility

infrastructure that reside within these forestry tracks. The remaining 1.27 km length of the cable route is within existing trackways traversing mapped blanket peat deposits, however peat probing has shown that peat is very thin/largely absent along the route. To facilitate placement of the UGC, a trench 1315mm deep and 825mm wide is required. The 6no. ducts will be placed at between 750mm and 1250mm depth. The subsurface works will include the excavation of a cable trench to accommodate the cable. The proposed UGC will have direct effect on the townland boundary between Curragh and Cummeennabuddoge (CH051), which it crosses. The magnitude of impact was deemed to be slight as only a small portion of the townland boundary will be broken, while the remainder of the townland boundary will remain unchanged. It will also have a permanent, direct impact on CH216.

### Access Tracks

The proposed development includes upgrading of existing access tracks as well the construction of new access tracks. The existing access track will be upgraded and widened to accommodate construction traffic and heavy good vehicular traffic. The proposed new tracks within the proposed development site will have a permanent direct impact on two townland boundaries, CH057 and CH059. The impact on CH057 was judged to be a moderate due to the fact that it will be broken at several points by different element of the proposed infrastructure. However, the impact on CH059 was judged to be slight as it will only a small portion of the townland boundary, while the remainder of the townland boundary will remain unchanged.

The cut and fill associated with the access track at the site entrance will have a direct impact CH079, which is a stream. This is an area of archaeological potential, meaning that there is possibility for unknown subsurface archaeology which could be directly impacted by the proposed works. This impact was judged to be slight as while potential archaeology associated with the stream could be directly impacted, the stream itself will not be crossed

The upgraded access tracks and new access will also have a permanent, direct impacted on CH216. The impact on the CH receptor was deemed to be significant due to the potential physical impact on the unknown subsurface archaeology.

In addition, the proposed new access track connecting the turbines will have permanent, direct impact six AAPs (CH063-CH068), tributaries which travel south from the Clydagh River. This effect was deemed to be moderate due to the potential physical impact on streams and on the unknown subsurface archaeology.

### Watercourses

The proposed development includes crossing a total of 10 watercourses. This will comprise two minor existing crossings proposed along a section of existing access track for which no upgrade of existing structures is proposed. It will also involve eight new crossing structures proposed along new access tracks.

The proposed new watercourse crossings will have a direct impact on five AAPs (CH064, -CH068), which are the watercourses crossed. There is the potential for unknown subsurface archaeology to be permanently and directly impacted, and for this reason, it was judged to be a significant impact.

### Additional Infrastructure

Other works include the Temporary Construction Compounds, and the Metrological Mast. The Proposed Construction Compound will support the construction phase for the Proposed Development. The proposed Construction Compounds will have a permanent, direct effect on CH216.

The Metrological Mast will involve a 25 m x 25 m hardstanding area to accommodate the crane that will be used to install it. The foundation of the mast will be 10 m x 10 m with a depth of 5 m. The proposed mast will have a permanent, direct effect on CH216.

#### Tree felling

As the majority of the Site comprises commercial coniferous forestry plantation; tree felling will be required within and around the proposed development site. The proposed tree felling will have permanent, direct impact on eight AAPS, CH063–CH067, CH079, CH216. This was deemed to be moderate impact on CH063–CH067 due to the potential physical impact on streams and on the subsurface archaeology. The impact on CH079 was judged to be slight as while potential archaeology associated with the stream could be directly impacted, the stream itself will not be crossed

In addition, the proposed tree felling will have a direct impact on three townland boundaries(CH051, CH057, CH059). This was deemed to be moderate impact on CH057, and a slight impact on CH051 and CH059, due to the reasons give above.

#### Turbine Delivery Route

The proposed turbine delivery route is from Ringaskiddy Port, County Cork, onto the N28, N40, N22, and then onto the local road to the Site entrance. Works will be required to facilitate the delivery of turbine components along the proposed turbine delivery route at 6 locations. Some of these will be relatively minor in nature, for example, temporary removal of street furniture and signage while other works will be more extensive, such as upgrading the road surface at one location as it currently serves as a bicycle path. None of these works extend beyond the confines of the existing road corridors, or into private land. The proposed turbine delivery route will not have a direct impact on known CH receptors.

The potential impacts on the known and potential archaeological, architectural and cultural heritage of the area are outlined in Table 14-15 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 14-19: CH sites with potential to for an indirect and direct effect during construction**

CH No.	Baseline Value	Quality of effect:	Magnitude of Impact prior to mitigation	Extent and Context:	Probability and Duration of Effect:	Significance of Impact: prior to mitigation
CH001	Very High	Negative Effect	Imperceptible	Indirect impact to setting only	Short-term effect	Imperceptible Effect
CH051	Medium/High	Negative Effect	Slight	Potential for direct impact from	Permanent Effects	Slight Negative Effect

CH No.	Baseline Value	Quality of effect:	Magnitude of Impact prior to mitigation	Extent and Context:	Probability and Duration of Effect:	Significance of Impact: prior to mitigation
				construction groundworks and indirect impact to setting		
CH057	Medium/High	Negative Effect	Moderate	Potential for direct impact from construction groundworks and indirect impact to setting	Permanent Effects	Slight Negative Effect
CH059	Medium/High	Negative Effect	Slight	Potential for direct impact from construction groundworks and indirect impact to setting	Permanent Effects	Slight Negative Effect
CH063–CH068	High	Negative Effect	Moderate	Potential for direct impact from construction groundworks	Permanent Effects	Moderate negative
CH079	High	Negative Effect	Slight	Potential for direct impact from construction groundworks	Permanent Effects	Slight negative
CH083 (The Paps)	Very High	Negative Effect	Imperceptible	Indirect impact to setting only from construction activities	Short-term effects	Imperceptible
CH085–CH088	High	Negative effect	Imperceptible	Indirect impact to setting only from construction activities	Short-term effects	Imperceptible
Monuments within the Paps Landscape (CH002–CH020, CH022, CH135–CH152,	Very High	Negative Effect	Imperceptible	Indirect impact to setting only from construction activities	Short-term effects	Imperceptible

CH No.	Baseline Value	Quality of effect:	Magnitude of Impact prior to mitigation	Extent and Context:	Probability and Duration of Effect:	Significance of Impact: prior to mitigation
CH154- CH159, CH161- CH169, CH195						
Monuments outside the Paps Landscape (CH021, CH037 CH040 –CH046 CH075 CH092– CH093 CH095 CH098 –CH100 CH153 CH160 CH171– CH176)	Very High	Negative Effect	Imperceptible	Indirect impact to setting only from construction activities	Short-term effects	Imperceptible
CH212	Very High	Negative Effect	Imperceptible	Indirect impact to setting only from construction activities	Short-term effects	Imperceptible
CH216	Medium/High	Negative Effect	Significant	Potential for direct and indirect impact from construction groundworks	Permanent Effects	Moderate negative

#### 14.4.4 Operational Phase Potential Effects (Indirect)

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 outlined Section 14.3.7 and the Paps Archaeological Landscape discussed

### Indirect impact on designated cultural heritage receptors

The Proposed Development is located on the north-northwest-facing slopes of the Derrynasagart mountains, with views predominantly to this direction. The closest Recorded Monument to the wind turbines is CH001 (RMP KE077-001---- a hut site) ----), which is located c. 266 m south of the site boundary. However, while the turbines will be visible from the site of the hut during operation, there is no above surface trace of this RMP surviving. As a result, the indirect impact on the setting of the RMP during operation phase is considered imperceptible.

The turbines will be visible from many recorded monuments that do survive in the defined study areas 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-six recorded monuments are located within the 5 km study area of the Proposed Development Site. In addition, there are four National Monuments (CH187–CH190) within the 10 km study area. However, these will not be impacted as 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.

The underground nature of the proposed UGC route means it will not have an indirect effect on the setting of any known cultural heritage receptors.

In addition, the proposed 'TDR' partially crosses the Zone of Notification for CH215 but will not have an indirect effect as no works appear to be proposed within the zone. The proposed 'TDR' will also not have indirect effect on the setting as it follows the existing roads.

Furthermore, there are three Protected Structures (CH084, CH212, CH217) within the 5 km study area. In addition, CH084 is also listed on the NIAH register and there are also four other NIAH registrations (CH085–CH088). One of the receptors, CH217 is Cloghboola National School which is situated c. 2.5 km north-east, while the remaining six receptors are located around the town of Ballyvourney. These six include two bridges (CH084, CH088), school (CH085), Home farm (CH086), and a house (CH088). The ZTV analysis shows that the turbines will be visible from five of the seven receptors with no turbines visible from CH084 and CH217. It shows that 4 to 6 turbines will be visible from three receptors (CH085–CH086, CH212) and 7 to 9 turbines will be visible from two receptors (CH087-CH088). However, the receptors are located c. 4.8 km south of the Proposed Development site, and the existing terrain and buildings will likely screen the turbines from the receptors. Given this, the potential effect is reduced to not-significant, and no mitigations are recommended as they would be of little benefit.

The remaining three NIAH registrations are located along the proposed 'TDR' and it will not be indirectly affected as it follows the existing roads.

### The Paps Archaeological Landscape

CH083 (Plates 25 and 26) -*The Paps Archaeological Landscape* borders the Proposed Development Site to the northwest. This is a significant, archaeological, historic and mythological landscape which is in use to present day. There are 75 recorded monuments located within the *Paps Archaeological Landscape* (CH002–CH020, CH022, CH115–CH128, CH131, CH134–CH148, CH150–CH152, CH154, CH159, CH161–CH166, CH170). The remaining 69 recorded monuments are located in Co. Cork and outside of this archaeological landscape as it is identified in the County Kerry Development Plan (2022-2028).

A study of the Paps by M. Connolly (2006) has highlighted the importance of the views from the Paps. On the summit of the East Pap is a cairn (CH142) which likely contained a small passage tomb. The West Pap also has a cairn (CH195) on the summit, which is located 5.7 km north-east of the Proposed Development Site. A ZTV analysis of the Proposed Development site shows that 16-17 turbines will be visible from CH142 and CH195. The photomontage taken from CH142 and CH195 also shows that the wind turbines will be visible from the summit of the East Pap and the West Pap.

There are a further 75 recorded monuments to the northeast, east and south of the Paps within the defined archaeological landscape which lie inside the study area. A ZTV analysis of the Proposed Development site indicates that fewer than ten turbines will be visible from 41 recorded monuments within this archaeological landscape. For the majority (26/41) of recorded monuments, there will be 7 to 9 turbines visible (CH003-CH004, CH012-CH013, CH022, CH143-CH150, CH155-CH157, CH159, CH161, CH163-CH169).

Following this, 4 to 6 turbines will be visible from ten sites (CH002, CH014–CH020, CH135, CH158) while 1 to 3 will be visible from five sites (CH136–CH140). The ZTV mapping also suggests that ten or more turbines will be visible from 13 monuments. This breakdown to 10 to 12 will be visible from two monuments (CH151, CH162), 13 to 15 turbines will be visible from eight monuments (CH005–CH011, CH154) and 16 to 17 turbines will be visible from three monuments (CH140, CH141, CH152). The ZTV map shows that no turbines will be visible from the remaining 22 recorded monuments.

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.

In summary, the proposed development will have a long-term, moderate reversible indirect (visual) effect on the Paps Archaeological landscape (CH083). It will alter the view and setting of the cairns (CH142, CH195), however, views towards recorded monuments to the south and southeast are already obscured by topography. In addition, it will alter the setting and view from 53 of the recorded monuments within the

landscape. However, no turbine will affect the intervisibility between recorded Archaeological Monuments within the defined archaeological landscape area, and as such respects the character and integrity of the archaeological landscape. In addition, a moderate effect is suggested as the visual effect will only last for the lifespan of the windfarm, with the setting of the landscape being restored to its current state once the turbines are removed.

### Recorded Monuments outside the Paps Archaeological Landscape

The study by Connolly (2006) also highlighted the visibility of the Paps from the surrounding prehistoric monuments (Connolly 2006). Prehistoric monuments highlighted by the study including one of the wedge tombs (CH044–CH046) on the slope of Knockacommeen located outside the archaeological landscape. They are located within c. 5 km of the Paps, and the distance is noted as important as it creates an unobstructed view of the Paps (Connolly 2006). These wedge tombs are located to between c. 1.6 km to 2.6 km south-west of the proposed development site. The proposed development will not obstruct the intervisibility between the Paps and the wedge tombs. The ZTV mapping indicates from 13 to 15 turbines will be visible from CH044, 4 to 6 turbines from CH045 and 16 to 17 turbines will be visible from CH046. The location of CH044 within a forest plantation indicates the theoretical visibility of the turbines from the monument is likely to be greatly reduced for the life of the plantation. The proposed development will have a visual effect on the setting of the three wedge tombs. However, as noted, the proposed development will not obstruct the intervisibility between the Paps and the wedge tombs. As result, it will also not affect the appreciation of the inter-relationship between these monuments and the Paps. Any visual impact will be restricted to the north-east aspect.

Other prehistoric monuments located outside the archaeological landscape include a stone circle (CH036) and wedge tomb (CH037) to the east of the proposed development site. In addition, to the south of proposed development site, there is a standing stone pair (CH042), four standing stones (CH043, CH099, CH101, CH177), a stone row (CH093), two unclassified cairns (CH109, CH112) and a ring cairn (CH113). The proposed development site lies between the Paps and these eleven sites. However, the turbines are situated in a valley below the hill-scape and do not affect any intervisibility between monuments. The location of the turbines has already been subject to modern agricultural exploitation in the form of peat extraction and modern agri-forestry and as such is not representative of the prehistoric landscape of which these monuments form a part. In addition, the ZTV map shows six of the sites fall outside the ZTV of the turbines (CH036, CH101, CH109, CH112, CH113, CH177). Of the remaining five, the ZTV mapping indicates that 1–3 turbines are visible from CH037, 4–6 turbines are visible from CH043, 7–9 turbines are visible from CH042 and CH099 while 7–9 turbines are visible from CH093. The proposed development will have a visual, indirect impact on the monuments as it will impact on their view. However, their relationship with the Paps landscape and other monuments should still be discernible, and as a result the proposed development will not affect the readability of their setting within the landscape.

There are a further 19 recorded monuments located to the northeast and east of the Proposed Development (CH021, CH023–CH034, CH089, CH153, CH171–CH175), from 13 of which the turbines will not be visible. The ZTV mapping shows that 1 to 3 turbines will be visible from four monuments (CH171, CH173–CH175) while 4 to 6 turbines will be visible from two monuments (CH021, CH172). There are also a further 35 monuments to the south of the proposed development site, from 26 of which no turbines are visible. Of

the remaining, 1-3 turbines will be visible from six sites (CH075, CH095, CH098, CH100, CH160, CH176), 7-9 turbines will be visible from three sites (CH001, CH041, CH092), and 10-12 turbines will be visible from CH040. Although in regard to CH001, this impacted is negated by the fact it has no above surface remains, meaning that potential impact will be imperceptible.

In summary, the turbines are located in a valley below the surrounding hillscape where the prehistoric monuments are generally sited, and will therefore not affect the intervisibility of these monuments with the Paps. The location of the turbines will also not impact on the intervisibility between the wedge tombs CH044-CH046 and the Paps. While the wind turbine development will have an impact on the settings of those monuments indicated as visible in the ZTV analysis, the proposed development site is within an area of modern agri-forestry which will help to reduce the potential visibility in some cases. The modern nature of the proposed development site is also not representative of the prehistoric landscape within which the surrounding monuments were originally set. The locations of the turbines within the modern landscape would not have a further detrimental impact on the readability of the surrounding prehistoric landscape.

Given that many of the designated cultural heritage receptors 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 receptors within 5km is considered to be long-term, moderate and reversible. This is 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**.

### Indirect impact on undesignated cultural heritage receptors

There are six undesignated cultural heritage receptors (CH060-CH061, CH078, CH080-CH082) within the Proposed Development Site with no designated protections and are of local significance. Five of the receptors have upstanding remains (CH060-CH061, CH078, CH080-CH081) while the final site (CH082) has no upstanding remains.

Three of the receptors (CH078, CH080, CH082) are adjacent to the proposed site entrance and new access road. One of the receptors, CH082, is a lime kiln with no upstanding remains. As a result, the Proposed Development will have an imperceptible effect on the setting of the lime kiln.

The other receptors included are a vernacular settlement with a field system (CH078) and a ford (CH080). The construction of new entrance and road along with the associated tree felling will be visible from CH078 and CH080, and it will alter the setting of the receptors. This is judged to be a slight, permanent, indirect effect as the setting is changed but the receptors are not directly impacted.

Two of the undesignated cultural heritage receptors (CH060–CH061) are located along the northern boundary of the proposed wind farm. The immediate setting of the vernacular structures will be indirectly affected by the construction of the wind turbines and associated infrastructure. This was judged to be a moderate, permanent, indirect effect as the setting will be changed by the proposed construction.

The last site is a hut site (CH081) located c. 178 m south of the proposed UGC route. The underground nature of the grid connection means it will not have an indirect effect on the hut site.

For the duration of its use, the project will have a permanent, indirect effect on the setting of CH047–CH059 (townland boundaries). Given that townland boundaries are so ubiquitous in the Irish countryside, and that they have been incorporated into the modern agricultural landscape, they are subject to frequent changes in their surroundings. This is judged to be an imperceptible indirect effect as the townland boundaries will remain unchanged.

### 14.4.5 Operational Phase Potential Effects (Direct)

During the operation phases, the proposed development will have been constructed, and potential direct impacts to the archaeology will have occurred during the construction phase, which is outlined in Section 14.4.3. As a result, no further direct impacts are predicted during the operation phase.

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.

**Table 14-20 CH sites with potential for indirect and direct effect during the operational phase**

CH No.	Baseline Value	Quality of Effect:	Magnitude of Impact prior to mitigation	Extent and Context:	Probability and Duration of Effect:	Significance of Impact prior to mitigation
CH001	Very High	Negative Effect	Imperceptible	Indirect impact to setting only	Long-term, reversible effects	Imperceptible Effect
Monuments within the Paps Landscape (CH002–CH020, CH022, CH135–CH152, CH154–CH159, CH161–CH169, CH195)	Very High	Negative Effect	Moderate	Indirect impact to setting only	Long-term, reversible effects	Moderate Negative Effect
Monumen	Very	Negative	Moderate	Indirect	Long-term,	Moderate

CH No.	Baseline Value	Quality of Effect:	Magnitude of Impact prior to mitigation	Extent and Context:	Probability and Duration of Effect:	Significance of Impact prior to mitigation
ts outside the Paps Landscap e (CH021, CH037 CH040 –CH046 CH075 CH092– CH093 CH095 CH098 –CH100 CH153 CH160 CH171– CH176)	High	Effect		impact to setting only	reversible effects	Negative Effect
CH047-CH059	Medium/ High	Negative Effect	Imperceptible	Indirect impact to setting only	Permanen t effects	Imperceptible
CH060–CH061	High	Negative Effect	Moderate	Indirect impact to setting only	Permanen t effects	Moderate negative
CH078, CH080	Medium/ High	Negative Effect	Slight	Indirect impact to setting only	Permanen t effects	Slight Negative Effect
CH083 (The Paps)	Very High	Negative Effect	Moderate	Indirect impact to setting only	Long-term, reversible effects	Moderate Negative Effect
CH085–CH088	High	Negative Effect	Not-significant	Indirect impact to setting only	Long-term, reversible effects	Slight negative
CH212	Very High	Negative Effect	Not-significant	Indirect impact to setting only	Long-term, reversible effects	Slight negative

#### 14.4.6 Decommissioning Phase Effects (Indirect)

The expected operational lifespan of the Proposed Development is 35 years from the date of commissioning of the entire wind farm. Once the Proposed Development ceases operation after the period of generation, all major equipment and structures will be removed from the Site or may be replaced with a new set of turbines subject to planning permission being obtained.

The 17 turbines will be removed but all other elements will remain *in situ*. This includes the Site access roads and associated drainage systems which will serve ongoing forestry and agriculture activity in the area. All other hard surfaced areas will be allowed to revegetate naturally. It also includes the onsite substation and 110kV grid

connection, which will be under the ownership of ESB, and will form a permanent part of the national electricity grid.

Like during the construction phase, the decommissioning activities will be visible from CH001 although the lack of surviving remains of CH001 means this effect will be imperceptible. In addition the decommissioning activities will be visible from the Paps Archaeological Landscape (CH083) and the 53 recorded monuments within the landscape (CH002–CH020, CH022, CH135–CH152, CH154–CH159, CH161–CH169, CH195). The turbines will be visible from 24 recorded monuments outside of the Paps Archaeological Landscape (CH021, CH037, CH040–CH046, CH075, CH092–CH093, CH095, CH098–CH100, CH160, CH153, CH171–CH176).

Of the infrastructure, the turbines are the most obtrusive feature, and one option as part of the decommissioning phase involves their removal. The removal of the turbines will allow an unobstructed view of the surrounding landscape from the monuments within and outside the Paps Archaeological Landscape. As a result, the indirect, visual impact on the above receptors will be removed. This will have a permanent, moderate positive effect on the setting of the monuments.

The second option involves the turbines being replaced by a new set of turbines. If this option is undertaken then the turbines will continue to obstruct the view from the Paps Archaeological landscape, the associated monuments and the surrounding monuments. If this is the case, then the indirect impacts identified during the operational phase will also be maintained. Assuming the new wind farm will be of a similar size and have a life span similar to the Proposed development, it will have the same long-term, reversible indirect, moderate negative impact on CH002–CH022, CH037, CH083, CH040–CH046, CH075, CH092–CH093, CH095, CH098–CH100, CH135–CH159, CH160–CH169, CH195.

In addition, if the turbines are removed, then potential indirect effect on the cultural heritage receptors, CH085–CH088, CH212 are undone. However, if they are replaced, the potential indirect effect remains the same as the operational phase.

Within the Proposed Development site are the four undesignated cultural heritage receptors (CH060–CH061, CH078–CH080) and the 13 townland boundaries (CH047–CH059). During the operation phase, their setting will be indirectly affected by the Proposed Development site. As much of the infrastructure will be maintained after the decommissioning of the Proposed Development, the potential effects on these receptors are judged to be same as the operational phase.

#### 14.4.7 Decommissioning Phase Effects (Direct)

There are no direct impacts predicted during the decommissioning phase of the Proposed Development. This is because the activities during this phase will utilise all existing internal site tracks and public roads. Other infrastructure such as the substation and grid connection, turbine foundations and hardstands will remain in place. In particular, the turbine foundations and hardstands will be allowed to naturally revegetate. Turbines will be removed from site using the same transport methodology adopted for delivery to site initially. As a result, no further ground disturbance is expected to occur.

In addition to this, any direct, physical impact from the ground disturbance related to the site infrastructure will have occurred during construction phase, as outlined in Section 14.4.3 It is assumed that suitable mitigation will have been implemented to

resolve the potential direct impact at construction stage. As such, no direct impacts should occur during decommission phase, and no further mitigations should be required.

**Table 14-21 CH sites with potential for indirect and direct effect during the decommissioning phase**

CH No.	Baseline Value	Quality of Effect:	Magnitude of Impact prior to mitigation	Extent and Context:	Probability and Duration of Effect:	Significance of Impact prior to mitigation
CH001	Very High	Negative Effect	Imperceptible	Indirect impact to setting only	Long-term effects	Imperceptible Effect
Monuments within the Paps Landscape (CH002–CH020, CH022, CH135–CH152, CH154–CH159, CH161–CH169, CH195)	Very High	Positive Effect	Moderate	Option 1 will have a positive Indirect impact to the setting	Permanent effect	Moderate Positive Effect
Monuments within the Paps Landscape (CH002–CH020, CH022, CH135–CH152, CH154–CH159, CH161–CH169, CH195)	Very High	Negative Effect	Moderate	Option 2 will have an indirect impact to setting	Long-term, reversible effects	Moderate Negative Effect
Monuments outside the Paps Landscape (CH021, CH037, CH040–CH046, CH075, CH092–CH093, CH095, CH098–CH100)	Very High	Positive Effect	Moderate	Option 1 will have a positive Indirect impact to the setting	Permanent	Moderate Positive Effect

CH No.	Baseline Value	Quality of Effect:	Magnitude of Impact prior to mitigation	Extent and Context:	Probability and Duration of Effect:	Significance of Impact prior to mitigation
CH153 CH160 CH171- CH176)						
Monuments outside the Paps Landscape (CH021, CH037, CH040 -CH046, CH075, CH092-CH093, CH095, CH098 -CH100, CH153, CH160, CH171-CH176)	Very High	Negative Effect	Moderate	Option 2 will have an indirect impact to setting	Long-term, reversible effects	Moderate Negative Effect
CH047-CH059	Medium/High	Negative Effect	Imperceptible	Indirect impact to setting only	Permanent effects	Imperceptible
CH060-CH061	High	Negative Effect	Moderate	Indirect impact to setting only	Permanent effects	Moderate negative
CH078, CH080	Medium/High	Negative Effect	Slight	Indirect impact to setting only	Permanent effects	Slight Negative Effect
CH083 (The Paps)	Very High	Positive Effect	Moderate	Option 1 will have a positive Indirect impact to the setting	Permanent	Moderate Positive Effect
CH083 (The Paps)	Very High	Negative Effect	Moderate	Option 2 will have an indirect impact to setting	Long-term, reversible effects	Moderate Negative Effect
CH085-CH088,	High	Positive Effect	Not-significant	Option 1 will have a positive Indirect impact to the setting	Permanent	Slight Positive Effect
CH085-	High	Negative	Not-	Option 2 will	Long-term,	Slight

CH No.	Baseline Value	Quality of Effect:	Magnitude of Impact prior to mitigation	Extent and Context:	Probability and Duration of Effect:	Significance of Impact prior to mitigation
CH088,		Effect	significant	have indirect impact to setting	an reversible effects	Negative Effect
CH212	Very High	Positive Effect	Not-significant	Option 1 will have a positive Indirect impact to the setting	Permanent	Slight Positive Effect
CH212	Very High	Negative Effect	Not-significant	Option 1 will have a positive Indirect impact to the setting	Permanent	Slight Negative Effect

### 14.4.8 Cumulative Effects

Cumulative impact is defined as ‘The addition of many small impacts to create one larger, more significant, impact’ (EPA 2022). 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 receptors in the defined study areas 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. The cumulative effect at construction (direct) and operation(indirect) are discussed below.

In order to assess overall cumulative effects on archaeology and cultural heritage the Proposed Development is considered in combination with other developments. The Technical Appendix 2-3 contains of a list of projects taken from ePlan portals for Kerry County Council and Cork County Council, which are examined to assess potential cumulative impacts on the cultural heritage resource. The appendix also outlines the study areas used to assess cumulative effect outlined in the appendix, which are used in this section. It was decided to exclude the Proposed Turbine Route from the review as it will follows the existing roads, and any works carried out will take place within previously disturbed areas, meaning there is little potential for it to contribute to the cumulative effect on subsurface archaeology.

**The three tables below, Table 14-22;**

Table

14-23;

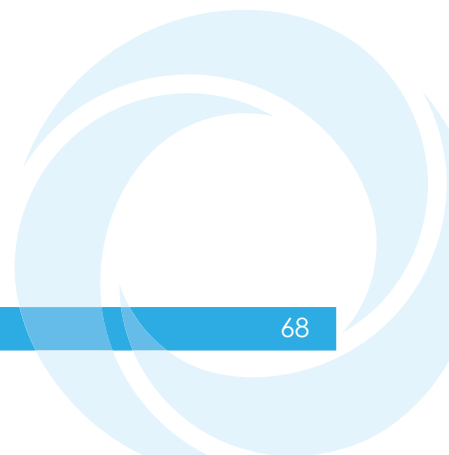


Table 14-24, outline the results of the review of the planning applications. This included a review of the archaeological and cultural heritage impact assessments of these developments included in the online planning files published on the Cork County Council and Kerry County Council planning enquiry systems as well as the Excavations Database.

**Table 14-22 Review of Developments within 3 km of the Project**

Planning Ref	Status	Description	Cultural Heritage Review
1876	Conditional	(A) install a waste water treatment system to replace septic tank serving existing dwelling house (b) permission for change use of existing detached outbuilding to independent habitable dwelling unit/studio	A review of the planning application found nothing relating to cultural heritage, while no excavations were found with the application boundary. No direct effects as work took place in area which was previously disturbed, reducing the potential of archaeology to low.
191260	Conditional	Fuel tank storage building	A review of the planning application found nothing relating to cultural heritage, while no excavations were found with the application boundary. No direct effects as work took place in area which was previously disturbed, reducing the potential of archaeology to low.
201263	Conditional	100m high temporary guyed lattice meteorological mast	A review of the planning application found nothing relating to cultural heritage, while no excavations were found with the application boundary.
22816	Refused	(I) underground electrical cabling (33kv), (ii) upgrade of access junctions; (iii) access roads (new and upgrade of existing); (iv) temporary access road; (v) borrow pit; (vi) site drainage; (vii) forestry felling; and (viii) all associated site development ancillary works and apparatus. The development subject to this application forms of grid connection and access arrangements which will facilitate the permitted knocknamork renewable energy development, cork county council ref. No. 19/4972.	No direct or indirect effects as planning application was rejected meaning it will not be constructed.
22861	Conditional	New dwelling house	A review of the planning application found nothing relating to cultural heritage, while no excavations were found with the application boundary.
216598	Conditional	Retention of detached domestic storage shed and retention of alterations & extensions to existing bungalow	A review of the planning application found nothing relating to cultural heritage. This is a retention application regarding works on an existing dwelling, and works would have taken place within previously disturbed areas, reducing the potential of direct on subsurface archaeology.
194972	Conditional	Renewable energy development consisting of the provision of a 7	A review of the Cultural Heritage Chapter in the EIAR prepared

Planning Ref	Status	Description	Cultural Heritage Review
		turbine wind farm, solar photovoltaic array, electricity substation, battery storage compound and all associated works	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), it can have a impact on the landscape of cultural heritage receptors. This will result in a slight increase in cumulative impacts on setting occurring
206146	Conditional	New dwelling house	A review of the planning application found nothing relating to cultural heritage, while no excavations were found with the application boundary.
217398	Conditional	(A)Permission for retention to retain entrance porch constructed to front of existing dwelling house and retention permission to retain domestic garage as constructed. (B) Permission to construct a two storey extension to the side of existing dwelling house, a single storey extension to the rear of existing dwelling house and construct new entrance porch to front of dwelling house in lieu of existing front porch.	A review of the planning application found nothing relating to cultural heritage, while no excavations were found with the application boundary.
215129	Conditional	The renovation, alterations to elevations, construction of an extension to an existing dwelling	A review of the planning application found nothing relating to cultural heritage, while no excavations were found with the application boundary.
215608	Conditional	Construct a single storey extension/porch to the front of the existing dwelling, demolish the existing garden shed and construct a new detached garage with wood store and open canopy along with all associated site works.	A review of the planning application found nothing relating to cultural heritage, while no excavations were found with the application boundary.
216547	Conditional	Dwelling, domestic garage, sewerage system, site entrance and all associated works.	A review of the planning application found nothing relating to cultural heritage, while no excavations were found with the application boundary.
215911	Incomplete Application	To construct an agricultural entrance	No direct or indirect effects as planning application was incomplete meaning it will not be constructed.
206962	Conditional	Dwelling, domestic garage and all associated site works	A review of the planning application found nothing relating to cultural heritage, while no excavations were found with the application boundary.

Planning Ref	Status	Description	Cultural Heritage Review
224542	Conditional	Change of use of former school to dwelling house, (Protected Structure ID number 01252)	A review of the planning application found an Architectural Heritage Assessment, which outlined the direct effects on the Protected Structure (CH217). The proposed development will not contribute to direct effect on the building.
224724	Conditional	Soil recovery facility	A review of the planning application found nothing relating to cultural heritage, while no excavations were found with the application boundary.
225294	Conditional	Retention of the works to New Product Technology Laboratory extension (Planning Ref. 18/7382)	A review of the planning application found nothing relating to cultural heritage, while no excavations were found with the application boundary. No direct effects as work took place in area which was previously disturbed, reducing the potential of archaeology to low.
225791	Conditional	Underground electrical cabling (33kV); (ii) Access roads (new and upgrade of existing); (iii) Amendments to the permitted developments (Ref. No. 19/4972), Knocknamork Renewable Energy Development,	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), it can have a impact on the landscape of cultural heritage receptors. This will result in a slight increase in cumulative impacts on setting occurring
226151	Conditional	New dwelling house	A review of the planning application found nothing relating to cultural heritage, while no excavations were found with the application boundary.
234415	Conditional	Change of use of a site from temporary soil storage area/compound to that of permanently improved agricultural grassland.	A review of an Archaeological, Architectural and Cultural Impact Assessment Report was carried out. No potential direct effects were identified resulting from permitted development.
234455	Conditional	Alterations to the dimensions of the 7 no. wind turbines permitted as part of the Knocknamork Renewable Energy development (planning reference 19/4972).	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), it can have a impact on the landscape of cultural

Planning Ref	Status	Description	Cultural Heritage Review
			heritage receptors. This will result in a slight increase in cumulative impacts on setting occurring
234862	Incomplete Application	Demolition of conservatory. Extension to dwelling house. Construction of porch.	No direct or indirect effects as planning application was incomplete meaning it will not be constructed.
235141	Conditional	Construction of dwelling house and domestic garage, new entrance, wastewater treatment system	A review of the planning application found nothing relating to cultural heritage, while no excavations were found with the application boundary.
234382	Withdrawn	New two storey extension to the rear of the existing dwelling house along with associated site works.	No direct or indirect effects as planning application was withdrawn meaning it will not be constructed.
235145	Refused	Renewable energy development. The entirety of the renewable energy development constitutes the provision of a five-turbine wind farm and all associated works on land in both Counties Cork and Kerry	No direct or indirect effects as planning application was refused meaning it will not be constructed.
235615	Further information	Slatted house with underground slurry/effluent storage tank and all associated site works.	A review of the planning application found nothing relating to cultural heritage, while no excavations were found with the application boundary.
244653	Application finalised	Battery storage compound, Extension of Duration to Permission granted under Planning Ref. No. 18/5686	A review of the planning application documents that it was determined that the potential effect on subsurface archaeology was very low due to previous significant construction.
23646	Refused	FIVE-TURBINE WIND FARM AND ALL ASSOCIATED WORKS	No direct or indirect effects as planning application was refused meaning it will not be constructed.
246492	Contribution Appeal Decided	Retain 26 metre mast and ancillary works	No direct or indirect effects as planning application was is being retained, meaning no changes to the environment.
314275	Conditional	110kV substation	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), it can have a impact on the landscape of cultural heritage receptors. This will result in a slight increase in cumulative

Planning Ref	Status	Description	Cultural Heritage Review
			impacts on setting occurring
314602	Further consideration required	14 turbines with 110kV electrical substation and all related site works and ancillary (Gortyrähily Wind farm)	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. It will not contribute to the cumulative effect on subsurface archaeology. The assessment also concluded that the visual impacts on archaeological sites within the surrounding landscape would be slight in significance. It will contribute to the cumulative effect on setting during operation
317406	Conditional	Electrical Cabling with upgrades to roads etc	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), it can have a impact on the landscape of cultural heritage receptors. This will result in a slight increase in cumulative impacts on setting occurring
317889	Conditional	Wind farm	A review of the emerging layout of this development revealed no recorded cultural heritage assets located within its proposed footprint. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation

**Table 14-23 Review of developments within 100 m of the Grid Connection**

Planning Ref	Status	Description	Cultural Heritage Review
306431	Granted	Whether or not the construction of 220kV Shunt Reactors and associated equipment within the existing Ballyvouskill 220/110kV Electricity Substation constitutes exempted development.	A review of the planning application found nothing relating to cultural heritage, while no excavations were found with the application boundary. No direct effects as work took place in area which was previously constructed, reducing the potential of

Planning Ref	Status	Description	Cultural Heritage Review
			archaeology to low.
314275	Conditional	110kV substation	A review of the Cultural Heritage Chapter in the EIA 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), it can have a impact on the landscape of cultural heritage receptors. This will result in a slight increase in cumulative impacts on setting occurring
314602	Further consideration required	14 turbines with 110kV electrical substation and all related site works and ancillary	A review of the Cultural Heritage Chapter in the EIA 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. It will not contribute to the cumulative effect on subsurface archaeology. The assessment also concluded that the visual impacts on archaeological sites within the surrounding landscape would be slight in significance. It will contribute to the cumulative effect on setting during operation
317406	Conditional	Electrical Cabling with upgrades to roads etc	A review of the Cultural Heritage Chapter in the EIA 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), it can have a impact on the landscape of cultural heritage receptors. This will result in a slight increase in cumulative impacts on setting occurring
314275	Conditional	110kV substation	A review of the Cultural Heritage Chapter in the EIA 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), it can have a impact on the landscape of cultural heritage receptors. This will result in a slight increase in cumulative

Planning Ref	Status	Description	Cultural Heritage Review
			impacts on setting occurring
184182	Conditional	Battery energy storage	A review of the planning application found nothing relating to cultural heritage, while no excavations were found with the application boundary.
186438	Conditional	1) no. ± 100 Mvar STATCOM transformer, one (1) no. auxiliary transformer, three (3) no. reactors, one (1) no. outdoor cooling bank, control and valve building (268m <sup>2</sup> ), underground connection to existing ESB substation	A review of the Cultural Heritage chapter of Planning environmental consideration report found no effect on the cultural heritage during the construction and operation phase.
205281	Conditional	Proposed modifications to the previously permitted development (planning ref: 18/06438)The proposed modifications will comprise the additional construction of one (1) harmonic filter, one (1) HV circuit breaker (including CT and VT), one (1) MV disconnecter and earth switch, two (2) cable sealing ends, three (3) additional lightning masts (approximately 25m high) and additional lamppost lightning. It further includes a retaining wall (approximately 2.5m high), asphalt (non-permeable) surfacing, additional permanent access road, additional fencing to match existing 2.6m high palisade, additional permanent access gate and all other ancillary site development works	A review of the Cultural Heritage chapter of Planning environmental consideration report found no effect on the cultural heritage during the construction and operation phase.
317889	Conditional	Wind farm	A review of the emerging layout of this development revealed no recorded cultural heritage assets located within its proposed footprint. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
22816	Refused	(I) underground electrical cabling (33kv), (ii) upgrade of access junctions; (iii) access roads (new and upgrade of existing); (iv) temporary access road; (v) borrow pit; (vi) site drainage; (vii) forestry felling; and (viii) all associated site development ancillary works and apparatus. The development subject to this application forms of grid connection and access arrangements which will facilitate the permitted knocknamork renewable energy development, cork county council ref. No. 19/4972.	No direct or indirect effects as planning application was refused meaning it will not be constructed.

**Table 14-24 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 EIA 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), it can have an impact on the landscape of cultural heritage receptors. This will result in a slight increase in cumulative impacts on setting occurring
Coomacheo	Operational	121	15	Archaeological monitoring of the construction of this development in 2006 revealed nothing of archaeological significance. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Gneeves	Operational	91	11	Archaeological monitoring of the construction of this development in 2004 revealed nothing of archaeological significance. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Curragh	Operational	121	8	The Excavations Database does not contain any entries for this development. A review of the EIA for the development revealed that its location does not contain any designated cultural heritage receptors. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Caherdowney	Operational	100	5	The Excavations Database does not contain any entries for this development. A review of the EIA for the development revealed that its location does not contain any designated cultural heritage receptors. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Clydaghroe	Operational	100	5	The excavations Database does not contain any entries for this development. A review of the EIA for the development revealed that its location does not contain any designated cultural heritage receptors. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation

Name	Status	Maximum blade tip height (m)	Number of turbines	Cultural Heritage Review
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 receptors. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Carrignaima Community Wind Farm	Operational	120	6	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Sillahertane	Operational	82.5	10	Archaeological monitoring of the construction of this development revealed nothing of archaeological significance. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Inchincoosh	Operational	125	6	Archaeological monitoring of the construction of this development in 2008 revealed nothing of archaeological significance. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Lettercannon	Operational	125	7	Archaeological monitoring of the construction of this development revealed nothing of archaeological significance. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Kilgarven	Operational	120	15	Archaeological monitoring of this development revealed nothing of archaeological significance. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Midas	Operational	125	6	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Foilgreana & Coolknoohill	Operational	125	6	Archaeological monitoring of the construction of this development in 2013 revealed nothing of archaeological significance. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation

Name	Status	Maximum blade tip height (m)	Number of turbines	Cultural Heritage Review
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. It will not contribute to the cumulative effect on subsurface archaeology. The assessment also concluded that the visual impacts on archaeological sites within the surrounding landscape would be slight in significance. It will contribute to the cumulative effect on setting during operation.
Cleanrath	Operational	150	11	Archaeological testing and monitoring carried out as part of this development revealed nothing of archaeological significance. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation.
Bawnmore	Operational	127.5	5	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation.
Boggeragh	Operational	120	19	Archaeological monitoring of the construction of this development revealed nothing of archaeological significance. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation.
Boggeragh 2	Operational	136.5	38	Archaeological monitoring of the construction of this development revealed nothing of archaeological significance. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation.
Shehy More	Operational	131	23	Archaeological monitoring of the construction of this development revealed nothing of archaeological significance. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation.
Kealkil	Operational	91	10	Archaeological monitoring of the construction of this development revealed nothing of archaeological significance. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation.
Garranereagh	Operational	70	4	Archaeological monitoring of the construction of this development in 2012.

Name	Status	Maximum blade tip height (m)	Number of turbines	Cultural Heritage Review
				revealed nothing of archaeological significance. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Knockacummer	Operational	125	29	Archaeological monitoring of the construction of this development in 2008 revealed nothing of archaeological significance. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Taurbeg	Operational	121	11	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Goulacullin	Approved	77	5	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
WEDcross Wind Farm	Operational	120	2	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Glentanemacelli got	Operational	125	17	Archaeological monitoring of the construction of this development in 2009 revealed nothing of archaeological significance. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Esk	Operational	136.5	14	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Mount Eagle	Operational	112	8	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Scartaglen	Operational	126.5	23	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Scartaglen Extension	Operational	126.5	10	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It

Name	Status	Maximum blade tip height (m)	Number of turbines	Cultural Heritage Review
				will contribute to the cumulative effect on setting during operation
Mount Eagle extension	Approved	81	2	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Coolleegrean	Operational	110	7	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Coolknoohill and the Coom	Operational	86	4	Archaeological monitoring of this development revealed nothing of archaeological significance. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
O'Donoghue wind farm	Operational	86	4	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
McCarthy wind farm	Operational	86	3	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Midas Extension	Approved	125	2	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Barnadivane resubmission	Approved	131	6	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Derreenacrinnig West	Approved	81	7	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Grousemont	Operational	126	38	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Carrigarierk	Operational	140	5	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It

Name	Status	Maximum blade tip height (m)	Number of turbines	Cultural Heritage Review
				will contribute to the cumulative effect on setting during operation
Carrigarierk 2	Appealed	176.5	3	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Ballinagree	Approved	185	16	The Excavations Database does not contain any entries for this development. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation
Gortyrhilly	Approved but subject to Judicial Review	185	13	A review of the Cultural Heritage Chapter in the EIA 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. It will not contribute to the cumulative effect on subsurface archaeology.  The assessment also concluded that the visual impacts on archaeological sites within the surrounding landscape would be slight in significance. It will contribute to the cumulative effect on setting during operation
Inchamore	Approved	185	4	A review of the emerging layout of this development revealed no recorded cultural heritage assets located within its proposed footprint. It will not contribute to the cumulative effect on subsurface archaeology. It will contribute to the cumulative effect on setting during operation

### 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. Other development includes one off housing and agricultural buildings.

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 different elements of the Proposed Development, including the wind turbines and, access roads, and substation and grid connections and other associated infrastructure can combine to have a cumulative effect on the cultural heritage receptors. Together they alter the setting of the site, and this will contribute to cumulative effect on the setting of the receptors. In addition, together they will combine to have a localised effect on unknown subsurface archaeology within the development footprint.

An examination of the planning applications in Table 14-22 shows that other developments relate mainly to one-off housing, and agricultural activities. These developments are small-scale and localised, which results in a potential localised effect on subsurface archaeology. However, a review of the planning applications found nothing relating to cultural heritage, and no recorded excavation have taken place to date at these developments. In addition, in a number of cases, the developments have been carried out in previously disturbed areas, which means that the potential for archaeology is very low. As such they appear to have not contributed to the cumulative effect on subsurface archaeology.

An examination of the planning applications in

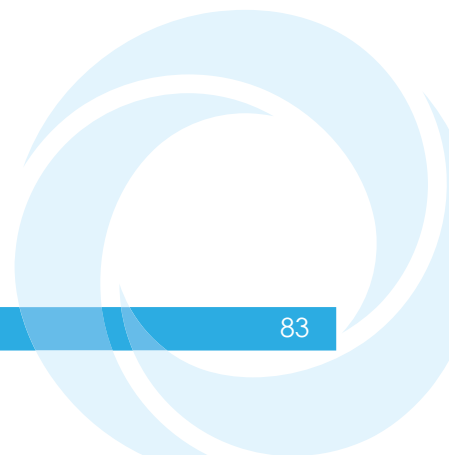


Table 14-24 shows the 45 windfarms within 30 km of the Proposed Development site. These larger-scale projects, such as the aforementioned existing and proposed windfarms, can have a localised impact on known cultural heritage receptors or unknown subsurface archaeology during construction. In addition, the Knocknamork and Clydagroe Extension Underground Cable Routes pass through the Proposed Development site. These could have direct effect on the same cultural heritage receptors as the Proposed Development, such as the townland boundaries. As a result, the Proposed Development and the aforementioned windfarms, could contribute to the cumulative effect on the Cultural Heritage receptors.

However, examination of the excavation database found that either no excavation took place or that no archaeology was found during monitoring where it did take place. In addition where the relevant cultural heritage chapter was assessed, it was found that there were no cultural heritage receptors within the footprint. As a result, the other windfarms will not contribute to the localised effect on archaeology. If the proposed development is subject to suitable mitigation measures, it should also not contribute to cumulative effect on the archaeology.

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.

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

### Cumulative Impacts (Indirect Impact on Setting)

The small, localised scale of one-off housing and buildings are not considered to be detrimental to the setting of cultural heritage receptors. As a result, they will not contribute to the cumulative effects on the setting of the receptors.

In addition, the wind farms can have impact on the landscape of cultural heritage receptors during operation. This includes their view and setting of cultural heritage receptors as well as their intervisibility. As a result, they can combine to contribute to the cumulative effect on setting. In particular, the windfarms in close proximity to the Proposed Development Site could contribute to the cumulative effect on the same receptors as the site under assessment. These are the existing windfarms at Curragh/Coomacheo and Knocknamork, and the proposed windfarm projects at Gortyrachilly and Inse Mhór (Technical Appendix 2-3 Cumulative Sites).

In the context of known sites of archaeological, architectural and cultural heritage receptors with statutory or other protections, CH001 is located c. 266 m south of 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 Wind 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 seven 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 tree cover, largely obscures the view to the Knocknamork development, as viewed from the north.

The proposed Inse Mhór winfarm is located approximately 7.5 km to the southwest of the subject site, and largely obscured from view by the natural topography. The proposed Gortyrähilly 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 archaeological landscape. However, it is noted that the Proposed Development does not impact upon the intervisibility between archaeological monuments within the archaeological landscape.

## 14.5 Proposed Mitigation/Monitoring

### 14.5.1 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, in areas which are not previously disturbed, and practicable feasible. 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.

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.

Where groundworks have a direct effect on townland boundaries, 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.

### 14.5.2 Mitigation Measures – Operation

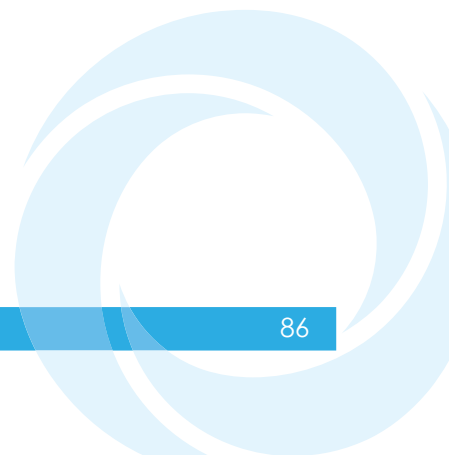
All direct impacts will have occurred at the construction phase due to ground disturbance. Subject to the implementation of the appropriate archaeological mitigation measures during the construction phase of the development, no mitigation measures are required for archaeological, architectural and cultural heritage during the operational phase of the Proposed Development.

It is not possible to mitigate the potential indirect effect of the Proposed Development on the setting of the surrounding known monuments and the Paps Archaeological Landscape. However, it is possible to incorporate a heritage opportunity into the Proposed Development design, which will enhance the surrounding monuments. This can be done by incorporating information boards on publicly accessible area within the Proposed Development site. This can contain detailed information on archaeological, architectural and cultural heritage background of the Clydagh Valley and the Paps Archaeological Landscape .

### 14.5.3 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.

No further mitigations are required subject to suitable mitigations being implemented at construction and operation phase.



**Table 14-25 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 mitigations measures
CH001	Construction	Indirect	It is possible to incorporate a heritage opportunity into the Proposed Development design, which will enhance the surrounding monuments. This can be done by incorporating information boards on publicly accessible areas within the Proposed Development site. This can contain detailed information on archaeological, architectural and cultural heritage background of the Clydagh Valley and the Paps Archaeological Landscape	Imperceptible	Imperceptible
CH001	Operation	Indirect	It is possible to incorporate a heritage opportunity into the Proposed Development design, which will enhance the surrounding monuments. This can be done by incorporating information boards on publicly accessible areas within the Proposed Development site. This can contain detailed information on archaeological, architectural and cultural heritage background of the Clydagh Valley and the Paps Archaeological Landscape	Imperceptible	Imperceptible
CH001	Decommissioning	Indirect	No further mitigations are required subject to suitable mitigations being implemented at construction and operation phase.	Imperceptible	Imperceptible
Monuments within the Paps Landscape (CH002-CH020, CH022, CH135-CH152, CH154-CH159, CH161-CH169,	Construction	Indirect	It is not possible to mitigate the potential indirect effect of the Proposed Development on the setting of the surrounding known monuments and the Paps Archaeological Landscape. However, it is possible to incorporate a heritage opportunity into the Proposed Development design, which will enhance the surrounding monuments. This can be done by incorporating information boards on publicly accessible areas within the Proposed Development site. This can contain detailed information on archaeological, architectural and cultural heritage background of the Clydagh Valley and the Paps Archaeological Landscape	Imperceptible	Imperceptible

CH. No.	Phase	Impact Type	Mitigation Measures	Magnitude of Impact after implementation of mitigation measures	Significance of Impact after implementation of mitigations measures
CH195)					
Monuments within the Paps Landscape (CH002-CH020, CH022, CH135-CH152, CH154-CH159, CH161-CH169, CH195)	Operation	Indirect	It is not possible to mitigate the potential indirect effect of the Proposed Development on the setting of the surrounding known monuments and the Paps Archaeological Landscape. However, it is possible to incorporate a heritage opportunity into the Proposed Development design, which will enhance the surrounding monuments. This can be done by incorporating information boards on publicly accessible areas within the Proposed Development site. This can contain detailed information on archaeological, architectural and cultural heritage background of the Clydagh Valley and the Paps Archaeological Landscape	Moderate	Moderate
Monuments within the Paps Landscape (CH002-CH020, CH022, CH135-CH152, CH154-CH159, CH161-CH169, CH195)	Decommissioning-Option 1	Indirect	No further mitigations are required subject to suitable mitigations being implemented at construction and operation phase.	Moderate positive	Moderate positive
Monuments within the Paps	Decommissioning-Option 2	Indirect	No further mitigations are required subject to suitable mitigations being implemented at construction and operation phase.	Moderate negative	Moderate negative

CH. No.	Phase	Impact Type	Mitigation Measures	Magnitude of Impact after implementation of mitigation measures	Significance of Impact after implementation of mitigations measures
Landscape (CH002–CH020, CH022, CH135–CH152, CH154-CH159, CH161-CH169, CH195)					
Monuments outside the Paps Landscape (CH021, CH037 CH040 –CH046 CH075 CH092–CH093 CH095 CH098 –CH100 CH153 CH160 CH171–CH176)	Construction	Indirect	No mitigations required	Imperceptible	Imperceptible
Monuments outside the Paps	Operation	Indirect	It is not possible to mitigate the potential indirect effect of the Proposed Development on the setting of the surrounding known	Moderate	Moderate

CH. No.	Phase	Impact Type	Mitigation Measures	Magnitude of Impact after implementation of mitigation measures	Significance of Impact after implementation of mitigations measures
Landscape (CH021, CH037 CH040 –CH046 CH075 CH092–CH093 CH095 CH098 –CH100 CH153 CH160 CH171–CH176)			monuments and the Paps Archaeological Landscape. However, it is possible to incorporate a heritage opportunity into the Proposed Development design, which will enhance the surrounding monuments. This can be done by incorporating information boards on publicly accessible area within the Proposed Development site. This can contain detailed information on archaeological, architectural and cultural heritage background of the Clydagh Valley and the Paps Archaeological Landscape		
Monuments outside the Paps Landscape (CH021, CH037 CH040 –CH046 CH075 CH092–CH093 CH095 CH098 –CH100 CH153 CH160)	Decommissioning-Option 1	Indirect	No further mitigations are required subject to suitable mitigations being implemented at construction and operation phase.	Moderate positive	Moderate positive

CH. No.	Phase	Impact Type	Mitigation Measures	Magnitude of Impact after implementation of mitigation measures	Significance of Impact after implementation of mitigations measures
CH171–CH176)					
Monuments outside the Paps Landscape (CH021, CH037, CH040–CH046, CH075, CH092–CH093, CH095, CH098–CH100, CH153, CH160, CH171–CH176)	Decommissioning-Option 2	Indirect	No further mitigations are required subject to suitable mitigations being implemented at construction and operation phase.	Moderate negative	Moderate negative
CH047–CH050, CH052–CH056, CH058	Construction	Indirect	No mitigations required	No effect	No effect
CH047–CH050, CH052–CH056, CH058	Operation	Indirect	No mitigations required	Imperceptible	Imperceptible
CH047–CH050,	Decommissioning	Indirect	No mitigations required	Imperceptible	Imperceptible

CH. No.	Phase	Impact Type	Mitigation Measures	Magnitude of Impact after implementation of mitigation measures	Significance of Impact after implementation of mitigations measures
CH052– CH056, CH058					
CH051	Construction	Direct	Where groundworks have a direct effect on the Curragh / Cummeennabuddoge townland boundary (CH051), 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	Slight	Slight Negative effect
CH051	Operation	Indirect	No mitigations required	Imperceptible	Imperceptible
CH051	Decommissioning	Indirect	No mitigations required	Imperceptible	Imperceptible
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	Slight	Not significant
CH057	Operation	Indirect	No mitigations required	Imperceptible	Imperceptible
CH057	Decommissioning	Indirect	No mitigations required	Imperceptible	Imperceptible
CH059	Construction	Direct	Where groundworks have a direct effect on the Glashacormick / Clydaghroe townland boundary (CH059), 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	Not significant	Imperceptible
CH059	Operation	Indirect	No mitigations required	Imperceptible	Imperceptible

CH. No.	Phase	Impact Type	Mitigation Measures	Magnitude of Impact after implementation of mitigation measures	Significance of Impact after implementation of mitigations measures
CH059	Decommissioning	Indirect	No mitigations required	Imperceptible	Imperceptible
CH060–CH061	Construction	No effect	No mitigations required	No effect	No effect
CH060–CH061	Operation	Indirect	However, it is possible to incorporate a heritage opportunity into the Proposed Development design, which will enhance the surrounding monuments. This can be done by incorporating information boards on publicly accessible area within the Proposed Development site. This can contain detailed information on archaeological, architectural and cultural	Moderate	Slight
CH060–CH061	Decommissioning	Indirect	No further mitigations are required subject to suitable mitigations being implemented at construction and operation phase.	Moderate	Slight
CH063–CH068	Construction	Direct	<p>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.</p> <p>In addition, advance archaeological test trenching (where practical) will be carried out by a suitably qualified archaeologist under licence, in areas which are not previously disturbed, and practicable feasible. Results from these archaeological works shall be compiled in a detailed report. This report will be submitted to the National Monuments Service (DoHLGH).</p> <p>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.</p> <p>All ground disturbance associated with the construction of the</p>	Slight	Slight

CH. No.	Phase	Impact Type	Mitigation Measures	Magnitude of Impact after implementation of mitigation measures	Significance of Impact after implementation of mitigations measures
			<p>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).</p> <p>In the event of archaeological features, finds and/or deposits being encountered during the monitoring, all relevant authorities will be notified immediately. Preservation <i>in-situ</i> or preservation by record (excavation) may be required.</p> <p>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</p>		
CH063–CH068	Operation	No effect	No further mitigations are required subject to suitable mitigations being implemented at construction phase.	No effect	No effect
CH063–CH068	Decommissioning	No effect	No further mitigations are required subject to suitable mitigations being implemented at construction phase.	No effect	No effect
CH078, CH080	Construction	No effect	No mitigation required	No effect	No effect
CH078, CH080	Operation	Indirect	However, it is possible to incorporate a heritage opportunity into the Proposed Development design, which will enhance the surrounding monuments. This can be done by incorporating information boards on publicly accessible area within the Proposed Development site. This can contain detailed information on archaeological, architectural and cultural	Slight	Slight
CH079	Construction	Direct	In addition, advance archaeological test trenching (where practical) will be carried out by a suitably qualified archaeologist under licence, in areas which are not previously disturbed, and practicable feasible. Results from these archaeological works shall be compiled in a detailed report. This report will be submitted to the	Slight	Imperceptible

CH. No.	Phase	Impact Type	Mitigation Measures	Magnitude of Impact after implementation of mitigation measures	Significance of Impact after implementation of mitigations measures
			<p>National Monuments Service (DoHLGH).</p> <p>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.</p> <p>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).</p> <p>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.</p>		
CH079	Operation	No effect	No further mitigations are required subject to suitable mitigations being implemented at construction and operation phase.	No effect	No effect
CH083 (The Paps)	Construction	Indirect	It is not possible to mitigate the potential indirect effect of the Proposed Development on the setting of the surrounding known monuments and the Paps Archaeological Landscape. However, it is possible to incorporate a heritage opportunity into the Proposed Development design, which will enhance the surrounding monuments. This can be done by incorporating information boards on publicly accessible area within the Proposed Development site. This can contain detailed information on archaeological, architectural and cultural heritage background of the Clydagh Valley and the Paps Archaeological Landscape	Imperceptible	Imperceptible
CH083 (The Paps)	Operational	Indirect	It is not possible to mitigate the potential indirect effect of the Proposed Development on the setting of the surrounding known monuments and the Paps Archaeological Landscape. However, it is	Moderate	Moderate

CH. No.	Phase	Impact Type	Mitigation Measures	Magnitude of Impact after implementation of mitigation measures	Significance of Impact after implementation of mitigations measures
			possible to incorporate a heritage opportunity into the Proposed Development design, which will enhance the surrounding monuments. This can be done by incorporating information boards on publicly accessible area within the Proposed Development site. This can contain detailed information on archaeological, architectural and cultural heritage background of the Clydagh Valley and the Paps Archaeological Landscape		
CH083 (The Paps)	Decommissioning-Option 1	Indirect	No further mitigations are required subject to suitable mitigations being implemented at construction and operation phase.	Moderate positive	Moderate positive
CH083 (The Paps)	Decommissioning-Option 2	Indirect	No further mitigations are required subject to suitable mitigations being implemented at construction and operation phase.	Moderate negative	Moderate negative
CH085–CH088	Construction	Indirect	No mitigations required	Imperceptible	Imperceptible
CH085–CH088	Operation	Indirect	No mitigations required	Not-significant	Slight Negative
CH085–CH088	Decommissioning-Option 1	Indirect	No mitigations required	Not-significant	Slight Positive
CH085–CH088	Decommissioning-Option 2	Indirect	No mitigations required	Not-significant	Slight Negative
CH212	Construction	Indirect	No mitigations required	Imperceptible	Imperceptible
CH212	Operation	Indirect	No mitigations required	Not-significant	Slight Negative
CH212	Decommissioning-Option 1	Indirect	No mitigations required	Not-significant	Slight Positive
CH212	Decommissioning-Option 2	Indirect	No mitigations required	Not-significant	Slight Negative
CH216	Construction	Direct	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.	Moderate	Slight

CH. No.	Phase	Impact Type	Mitigation Measures	Magnitude of Impact after implementation of mitigation measures	Significance of Impact after implementation of mitigations measures
			<p>In addition, advance archaeological test trenching (where practical) will be carried out by a suitably qualified archaeologist under licence, in areas which are not previously disturbed, and practicable feasible. Results from these archaeological works shall be compiled in a detailed report. This report will be submitted to the National Monuments Service (DoHLGH).</p> <p>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.</p> <p>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).</p> <p>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.</p>		
CH216	Operation	Direct	No further mitigations are required subject to suitable mitigations being implemented at construction phase.	No effect	No effect
CH216	Decommissioning	Direct	No further mitigations are required subject to suitable mitigations being implemented at construction phase.	No effect	No effect

## 14.6 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 long-term, reversible, moderate, negative indirect effect on the cultural environment.

## 14.7 Summary and Statement of Significance

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

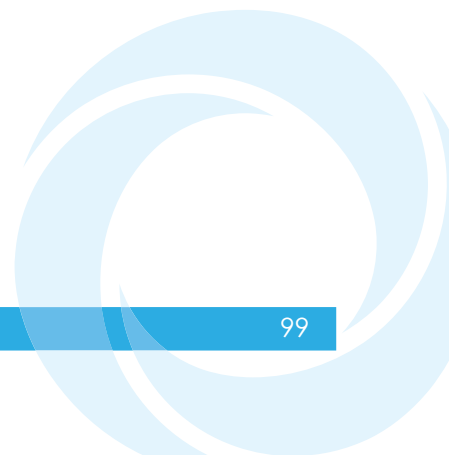
The assessment has found that the Proposed Development will have a permanent, direct effect on three townland boundaries (CH051, CH057, CH059), ranging in significance from slight to not significant. It will have permanent, slight effect on seven Areas of Archaeological Potential (CH063–CH068). It is noted that the 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.

It also found that the ZTV mapping showed that the Proposed Development will have a long-term moderate indirect effect on - *The Paps Archaeological Landscape* (CH083) which borders the Proposed Development Site to the northwest. It will also have a moderate, indirect effect on 55 recorded monuments within the archaeological landscape (CH002–CH020, CH022, CH135–CH152, CH154–CH159, CH161–CH169, CH195) as well as 24 recorded monuments outside of the archaeological landscape (CH021, CH037, CH040–CH046, CH075, CH092–CH093, CH095, CH098–CH100, CH160, CH171–CH176). No turbine affects 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 receptors 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 receptors 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.

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 heritage environment.



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