



# Technical Appendix 3: Archaeology and Architectural Heritage Impact Assessment

Coolshamrock 110Kv Substation SID

22/09/2023



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## EXECUTIVE SUMMARY

- 3.1. Neo Environmental Ltd has been appointed by Renewable Energy Systems (RES) Ltd to undertake an Archaeology & Architectural Heritage Impact Assessment for a Strategic Infrastructure Development Application for a new 110kV Substation to feed into the existing Drumline-Ennis 110kV overhead line circuit.
- 3.2. The desk-based assessment was conducted to ascertain all historical and archaeological information relevant to the Application Site and the local area. All types of heritage assets were considered and assessed within a 2km study zone. The size of this study zone was selected to ensure that comprehensive and informative data was collated to characterise the direct and indirect effects that the Proposed Development may have on historical and archaeological assets within the local area. Baseline information was also obtained through a site walkover survey, map regression analysis, placenames analysis, aerial photography, geophysical survey and consultation with relevant records and databases.
- 3.3. There are no recorded sites within the RMP, RPS and NIAH that are within or near to the Application Site that could be physically impacted by the Proposed Development. In addition, no features of archaeological interest were identified during the investigations, including the baseline analysis, site visit, or geophysical survey. As such, no direct impacts upon known archaeological and heritage assets are anticipated **and no specific mitigation measures will be required for the protection or recording of any known remains.**
- 3.4. Results from the geophysical survey indicate that sub-surface remains within the Application Site are likely to be limited to cultivation marks, although the surrounding heritage assets within the RMP in the 2km study zone suggest demonstrable evidence for prehistoric, medieval and post-medieval settlement activity which may have extended into the vicinity of the Application Site. While no evidence for such remains from these periods is present inside the site, this potential cannot be entirely ruled out. Previous land uses associated with agriculture (as shown in the cultivation lines from the geophysical survey data) and modern quarrying suggest that the land has been subject to disturbance which may impact the potential for the survival of sub-surface remains of significance. Combined with the relatively small Application Site size, the likelihood for the Proposed Development to encounter or impact sub-surface archaeology of significance is considered to be low.
- 3.5. In consideration of the above, **it is recommended that no specific further pre-determination works are necessary in relation to archaeology and heritage.** However, land within the substation boundary should be subject to the same evaluation by post-consent test trenching as has been recommended for the wider Coolshamrock Solar Farm (Planning Ref No. 22/586), ideally inclusive within the same programme and licence of work as the wider solar farm test trenching.

- 3.6. Indirect effects upon the surrounding heritage assets have been assessed as overall Low to negligible in the worst case. Therefore, **no specific mitigation is considered to be required for the reduction of any visual impacts upon heritage assets.**

## INTRODUCTION

### Background

- 3.7. Neo Environmental Ltd has been appointed by Renewable Energy Systems (RES) Ltd (the “Applicant”) to undertake an Archaeology & Architectural Heritage Impact Assessment (AAHIA) for a Strategic Infrastructure Development (“SID”) Application for a new 110kV Substation (“the Proposed Development”) to feed into the existing Drumline-Ennis 110kV overhead line (OHL) circuit. The Substation and 110kV loop in infrastructure is situated within the townland of Coolshamroge, Ennis, Co. Clare (“the Application Site”). The Substation is to facilitate the Manusmore Solar Farm (PA Ref: 20562), the Manusmore Solar Farm Extension (PA Ref: 21915) and the Coolshamrock Solar Farm (PA Ref: 22586).

### Development Description

- 3.8. Coolshamrock and Manusmore Solar Farms will feed into a new 110kV substation. The method of connection to the national grid for the new substation will be a looped connection into the existing Drumline – Ennis 110kV Circuit. 2 No. new OHL end towers will be constructed to facilitate connection to the existing OHL (see **Figure 3 and 11, Volume 2**). The application site will comprise of a 110/33kV substation which consists of 2 No. control buildings, a transformer compound, a high voltage (HV) switchgear compound, a customer MV compound and associated cabling. There is also 2 No. underground 110kV cables, a cable access track and 2 No. overhead line towers.
- 3.9. The control buildings will consist of foundation works, block work, roofing, low voltage electrical fit out, medium voltage switchgear, cladding and building finishing works.
- 3.10. A power transformer, HV electrical equipment (4bays), lightning protection masts, communication mast, structural steel works, circuit breakers, current transformers, voltage transformers, busbars, surge arresters, cable sealing ends, disconnectors/earth switches, surge arrestors and post insulators will be installed in the Eirgrid HV Substation Compound.
- 3.11. The Customer MV Compound will consist of 2 No. capacitor banks, 1 No. reactor banks and associated circuit breakers (capacitor and reactor), 1 no. harmonic filter, resistor, pre-insertion resistor and 1 No. auxiliary transformer.
- 3.12. Palisade and concrete post and rail fencing will be erected around the compound for security/protection.
- 3.13. The 110kV loop in connection will connect the Drumline-Ennis 110kV overhead line (OHL) circuit to 2. Overhead line towers and 2. No associated 110kV underground cables and into the HV compound infrastructure. There is a cable access which branches from the consent solar tracks (P22568) to provide access to the cables and towers.
- 3.14. Please refer to **Figure 3, Volume 2** for the layout of the Proposed Development.

## Site Description

- 3.15. The proposed Substation and 110kV loop in infrastructure is located within the townland of Coolshamroge, Ennis, Co. Clare. The proposed site is approximately 7km southeast of Ennis, 4.2km east of Clarecastle and 1.5km west of the smaller settlement Quin.
- 3.16. The Application Site in which the substation is proposed to be located comprises of 3 fields of relatively flat agricultural land. The Application site lies at an elevation of c. 26-31m AOD and covers a total area of c. 3.78 acres. The approximate Irish Grid Reference points (ITM) of the proposed substation are X 539777 and Y 674345. The proposed substation will be enclosed by palisade fencing. Access to the proposed substation will be from a private lane off an unnamed local road to the south which is the same entrance point from the consented Coolshamrock Solar Farm (PA Ref:22586).

## Scope of the Assessment

- 3.17. The assessment has been produced to evaluate the cultural heritage assets and archaeological remains relevant to the Application Site. A search of heritage assets has been carried out within a 2km study zone around the outer boundaries of the Proposed Development, including:
- World Heritage Sites
  - National Monuments in State Care (NMSCs);
  - Historic Gardens and Designed Landscapes (HGDLS);
  - Historic buildings from the Record of Protected Structures (RPS) and the National Inventory of Architectural Heritage (NIAH);
  - Architectural Conservation Areas (ACAs); and
  - Sites within the Record of Monuments and Places (RMP).
- 3.18. This approach is in line with previous similar assessments produced by Neo Environmental for proposed substation developments. This study zone allows assets of potentially national significance to be appropriately considered for indirect impacts, both on the assets themselves and their settings. Where appropriate, sites of exceptional value or sensitivity outside the study zone have also been assessed.
- 3.19. The aims of the assessment are as follows:
- To identify all known heritage assets within the study zone based on all available public resources;
  - To identify the archaeological potential of the Application Site;



- To determine what if any level of recording will be required for any extant remains;
- To assess the significance of any direct or indirect effect of the Proposed Development on cultural heritage assets and their settings and potential archaeological remains within the study zone, from construction through to decommissioning;
- To identify mitigation measures where possible and aid in the design process to reduce the potential impacts of the proposed scheme;
- To provide recommendations for any further archaeological/heritage assessment work that should be undertaken as part of the Proposed Development.

3.20. The report is supported by the following Figures and Technical Appendices:

- Appendix 3A: Figures
  - Figure 3.1 – Heritage Assets within 2km
  - Figure 3.2 – OSI 6" Historic Map (1829 – 1842)
  - Figure 3.3 – OSI 25" Historic Map (1897 – 1913)
  - Figure 3.4 – Lidar Data
- Appendix 3B: Tables
- Appendix 3C: Plates
- Appendix 3D: Geophysical Survey Report

## Statement of Authority

- 3.21. The assessment has been conducted by registered archaeologists with the Chartered Institute for Archaeologists (CIfA), of Associate (ACIfA) level or above and/or members of the Institute of Archaeologists of Ireland (IAI). The assessment has been conducted in accordance with the appropriate professional guidance outlined in the Codes of Professional Conduct, Institute of Archaeologists of Ireland (adopted April 2006)<sup>1</sup>.
- 3.22. Michael Briggs BSc (Hons) MSc ACIfA MIAI was the primary author of this assessment. He has undertaken a large number of cultural heritage and archaeological impact assessments for developments across the UK and Ireland, with a particular focus on renewable energy projects throughout the Republic of Ireland and Northern Ireland. He has over ten years of professional experience, including assessments from the initial stages of feasibility and

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<sup>1</sup> IAI (2006) *IAI Code of Professional Conduct*. IAI

heritage impacts through to complete programmes of archaeological works and discharge of conditions.

- 3.23. Paula Slaughter BA BSc (Hons) MSc undertook the site inspection and associated site visit report for this assessment. She is an experienced licence holder with over 19 years of experience within both Ireland and the UK, including fieldwork of all types as well as extensive management experience for numerous projects in the residential, commercial and renewable energy sectors.
- 3.24. Paul Neary BA H.Dip MA MSc MEnvSc MIAI ACIFA CEnv was the primary editor and had the final sign-off on the report. Paul is dual-qualified as a Chartered Environmentalist and archaeologist. Paul has over 16 years of archaeology and heritage experience, the majority of which relates to Ireland. Paul has worked on large road projects, EIA developments and energy projects across Ireland and the UK. He is licensed to direct archaeology work in the Republic of Ireland and has also held archaeology director licenses in Northern Ireland.

## LEGISLATION AND PLANNING POLICY CONTEXT

### Planning and Development Act 2000 Revised (Updated 24<sup>th</sup> October 2019)

- 3.25. Part IV of the Planning and Development Act<sup>2</sup> contains two chapters outlining the various classifications of heritage assets that have a primarily architectural heritage value, as well as their place within the planning system and development control. Chapter one considers Protected Structures while chapter two deals with Architectural Conservation Areas and Areas of Special Planning Control.

#### Protected Structures

*“For the purpose of protecting structures, or parts of structures, which form part of the architectural heritage and which are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest, every development plan shall include a record of protected structures, and shall include in that record every structure which is, in the opinion of the planning authority, of such interest within its functional area.” (Section 51)*

- 3.26. The protection of these assets is therefore achieved through the maintenance of a Record of Protected Structures (RPS) by each planning authority. Each RPS contains sites of architectural heritage from a wide range of chronological and functional backgrounds that will be of various sensitivities to direct and indirect impacts from development. For example, views from certain types of structures may be more integral to their heritage value than others and will therefore be more sensitive to indirect impacts as a result. The sites held within the RPS will therefore be assessed for their significance and sensitivity to the Proposed Development in order to accurately predict the potential impacts upon them.

#### Architectural Conservation Areas

*“A development plan shall include an objective to preserve the character of a place, area, group of structures or townscape, taking account of building lines and heights, that –*

*(a) Is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or value, or*

*(b) Contributes to the appreciation of protected structures,*

*If the planning authority is of the opinion that its inclusion is necessary for the preservation of the character of the place, area, group of structures or townscape concerned and any such*

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<sup>2</sup> Office of the Attorney General (OAG) (2000) Planning and Development Act (amended 2002), in *Irish Statute Book*. Dublin: Stationery Office.

*place, area, group of structures or townscape shall be known as and is in this Act referred to as an 'architectural conservation area'." (Section 81)*

- 3.27. The local planning authority therefore also designates Architectural Conservation Areas (ACAs) where concentrated or important areas of heritage area present. As such, these assets will also be assessed in addition to the heritage assets it contains. While the purpose of such areas is primarily to protect the architecture and character of the immediate area, indirect impacts can sometimes cause harm to an ACA.

## Project Ireland 2040

- 3.28. Project Ireland 2040 was adopted on 29<sup>th</sup> May 2018 as the joint publication of two main documents; the National Planning Framework and the National Development Plan. In their own words, these documents align their *"investment strategy with our strategic planning documents to, for the first time in the history of our State, create a unified and coherent plan for the country"*. Project Ireland 2040 therefore offers an overall strategy document for development within Ireland but does not contain any specific policies relating to archaeology or heritage within development management.

## National Monuments Act 1930

- 3.29. The National Monuments Act<sup>3</sup> establishes a number of provisions to ensure the protection of archaeological monuments in Ireland. The Register of Historic Monuments Act (1997) was one of the provisions of this act which stated that interference to a monument would be illegal.
- 3.30. The 1994 Amendment Act to the document required the Record of Monuments and Places (RMP) to be created and maintained by the authorities and holds information on recorded sites that are to be protected from development. The National Monuments Service (NMS) also holds an additional list of National Monuments under ownership or guardianship of the Minister (Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (DAHRRGA)) or the local authority.

*"The expression 'national monument' means a monument or the remains of a monument the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic, or archaeological interest attaching thereto and also includes (but not so as to limit, extend or otherwise influence the construction of the foregoing general definition) every monument in Saorstát Éireann to which the Ancient Monuments Protection Act, 1882, applied immediately before the passing of this Act, and the said expression shall be construed as including, in addition to the monument itself, the site of the monument and the means of access thereto and also such portion of land adjoining such site*

<sup>3</sup> OAG (1930) National Monuments Act (amended 1954, 1987, 1994, 2004), in *Irish Statute Book*. Dublin: Stationery Office.

*as may be required to fence, cover in, or otherwise preserve from injury the monument or to preserve the amenities thereof.” (Section 2)*

- 3.31. Both NMSCs and sites within the RMP, as well as their associated land and access, will therefore be considered for impacts within this assessment.

## Heritage Act 1995

- 3.32. The Heritage Act<sup>4</sup> seeks to promote the profile of both archaeological and architectural resources within Ireland. The Heritage Council was established in order to help achieve this and, as required by Section 2 of the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999, the DAHG subsequently established the National Inventory of Architectural Heritage (NIAH) in order to undertake a nationwide survey of the Irish architectural heritage. This survey provides a comprehensive overview of the architectural resource within Ireland and is still currently ongoing. The Act also contains the following definitions within Section 2:

### Architectural Heritage

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

### Heritage Building

*“any building, or part thereof, which is of significance because of its intrinsic architectural or artistic quality or its setting or because of its association with the commercial, cultural, economic, industrial, military, political, social or religious history of the place where it is situated or of the country or generally, and includes the amenities of any such building”*

### Heritage Gardens and Parks

*“areas of natural heritage, and gardens and parks whose plant collections, design, design features, buildings, setting, style or association are of significant scientific, botanical, aesthetic or historical interest or which illustrate some aspect of the development of gardening or of gardens and parks”*

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<sup>4</sup> OAG (1995) Heritage Act, in *Irish Statute Book*. Dublin: Stationery Office.

## Monument

*“includes the following, whether above or below the surface of the ground or the water and whether affixed or not affixed to the ground:*

- (a) Any artificial or partly artificial building, structure or erection or group of such buildings, structures or erections,*
- (b) Any cave, stone or other natural product, whether or not forming part of the ground, that has been artificially carved, sculptured or worked upon or which (where it does not form part of the place where it is) appears to have been purposely put or arranged in position,*
- (c) Any, or any part of any, prehistoric or ancient –*
  - (i) Tomb, grave or burial deposit, or*
  - (ii) Ritual, industrial or habitation site, and*
- (d) Any place comprising the remains or traces of any such building, structure or erection, any such cave, stone or natural product or any such tomb, grave, burial deposit or ritual, industrial or habitation site, situated on land or in the territorial waters of the State, but does not include any building, or part of any building, that is habitually used for ecclesiastical purposes.”*

## Framework and Principles for the Protection of the Archaeological Heritage

- 3.33. While the international and national legislation details the definitions and requirements for protection of archaeology and cultural heritage, the specifics of this protection is laid out in Part III of the Framework and Principles for the Protection of the Archaeological Heritage<sup>5</sup> document.

## Archaeological Assessment

*“The first option in all circumstances must be non-destructive investigation and study. Non-destructive techniques should wherever possible be used instead of destructive ones.” (Section 3.2(b))*

*“Where it is considered that a Proposed Development may (due to its location, size, or nature) have archaeological implications, then an archaeological assessment should be carried out.” (Section 3.6.2)*

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<sup>5</sup> Department of Arts, Heritage and the Gaeltacht (DAHG) (1999) *Framework and Principles for the Protection of the Archaeological Heritage*. Dublin: Stationery Office.

*“It is always essential that the report on archaeological assessment contain an archaeological impact statement describing the possible direct or in-direct effects of the Proposed Development on elements of the archaeological heritage.” (Section 3.6.4)*

- 3.34. This impact assessment constitutes a non-destructive investigation into the possible direct and indirect impacts of the Proposed Development. A site visit will be undertaken as part of the archaeological assessment within this report. This will provide considerably more information on any existing archaeological assets present within the site boundary and inform any further assessment or mitigation strategy.

### Mitigation Requirements

- 3.35. If significant possible direct impacts are identified, mitigation in the form of further archaeological works may be required. In this case such works:

*“should only be carried out if it is a necessary and appropriate follow-on to the results of suitable non-destructive methods in order to secure the further progression of archaeological research, or otherwise where there is no practicable or archaeologically acceptable alternative.” (Section 3.2)*

*“Whenever the archaeological heritage is affected, or proposed to be affected, by development the approach to be followed must be preservation in-situ or preservation by record through archaeological excavation and recording.” (Section 3.3)*

*“There should always be a presumption in favour of avoiding developmental impacts on the archaeological heritage. Preservation in-situ must always be the first option to be considered rather than preservation by record in order to allow development to proceed, and preservation in-situ must also be presumed to be the preferred option.” (Section 3.4)*

*“Where archaeological sites or monuments (or portions of such) are to be removed due to development then it is essential that the approach of preservation by record be applied.” (Section 3.5)*

- 3.36. Therefore in the case of direct impacts upon any known or unknown archaeological resource, preservation in situ is the preferred option for mitigation, through the use of buffer zones or non-penetrative construction methods for example. Where this is deemed unviable, preservation by record must be implemented in agreement with the relevant authorities and IAI standards. Such methods may involve test excavations (Section 3.6.5(b)) where an archaeological site or monument, or sub-surface features, are thought to be directly impacted by the Proposed Development. Otherwise a system of archaeological monitoring may be sufficient where *“only slight grounds for believing that the particular location contains archaeological deposits or features” (Section 3.7.2(i)).*

## National Cultural Institutions Act (1997)

- 3.37. The National Cultural Institutions Act (1997)<sup>6</sup> does not provide any specific policies or guidance on protection of heritage and archaeology, but contains legislation on several aspects of cultural heritage, including *“Indemnities in Respect of Certain Cultural Objects”*, *“Provisions Relating to Heritage Collections”* and *“Acquisition of Certain Cultural Objects”*. The Act also establishes the bases for the National Museum, Library and Gallery of Ireland. As such, the Act does not apply directly to this assessment but provides context for other legislative and policy documents.

## Architectural Heritage (National Inventory) and National Monuments Act (1999)

- 3.38. The Architectural Heritage (National Inventory) and National Monuments Act (1999)<sup>7</sup> is another legislative document that details the legal maintenance and protection of heritage as well as the punitive measures for any violations. As such, this Act also provides context for other legislative and policy documents. However, the Act provides a definition of ‘architectural heritage’ as:

*“all –*

- (a) structures and buildings together with their settings and attendant grounds, fixtures and fittings,*
- (b) groups of such structures and buildings, and*
- (c) sites.*

*Which are of architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest” (Section 1).*

## Clare County Development Plan 2023 – 2029

- 3.39. The Clare County Development Plan (CDP) 2023 – 2029<sup>8</sup> is currently being prepared for adoption. This document does not present a list of policies regarding development management within the County, but rather a series of objectives in relation to its strategic aims, which have had very slight changes to their wording from the versions within the previous CDP 2017 – 2023, due to be superseded. The objectives below are considered to be relevant to this AAHIA. For specific development management policies, the document defers to the aforementioned national legislation and policy documents.

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<sup>6</sup> OAG (1997) National Cultural Institutions Act, in *Irish Statute Book*. Dublin: Stationery Office.

<sup>7</sup> OAG (1999) Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act, in *Irish Statute Book*. Dublin: Stationery Office.

<sup>8</sup> Clare County Council. *Clare County Development Plan 2023 – 2029: Written Statement*. CCC.



**CDP16.1: Architectural Heritage**

- “A: To ensure the protection of the architectural heritage of County Clare through the identification of Protected Structures, the designation of Architectural Conservation Areas, the safeguarding of historic gardens, and the recognition of structures and elements that contribute positively to the vernacular and industrial heritage of the County; and*
- B: To ensure that the archaeological and architectural heritage of the County is not damaged either through direct destruction or by unsympathetic developments.”*

**CDP16.2: Protected Structures**

- “A: To protect, as set out in the Record of Protected Structures, all structures and their settings, which are of special architectural, historical, archaeological, artistic, cultural, scientific, social, or technical interest; and*
- B: To review the Record of Protected Structures periodically and add structures of special interest as appropriate, including significant elements of industrial, maritime or vernacular heritage and any twentieth century structures of merit.”*

**CDP16.3: Industrial Heritage**

*“To protect and preserve buildings and features of industrial heritage such as mills, bridges, lighthouses and harbours, amongst others. Proposals for refurbishment works to, or redevelopment/conversion of, these sites will be subject to a full architectural and archaeological assessment together with an ecological assessment with respect to the presence of protected species.”*

**CDP16.4: Vernacular Heritage**

- “A: To seek the retention, appreciation and appropriate revitalisation of the vernacular heritage of County Clare, in towns, villages and rural areas, by discouraging the replacement of good quality vernacular buildings with modern structures and by protecting vernacular buildings where they contribute to the character of an area or settlement and/or where they are rare examples of a structure type;*
- B: To support proposals to refurbish vernacular structures that are in a sub-standard or derelict condition, provided that:*
- Appropriate traditional building materials and methods are used to carry out repairs to the historic fabric;*

- *Proposals for extensions to vernacular structures are reflective and proportionate to the existing building and do not erode the setting and design qualities of the original structure which make it attractive;*
  - *Direction for the design is taken from the historic building stock of the area, though it can be expressed in contemporary architectural language.; and*
- C: *To ensure that visitor pressures from tourism associated with built and cultural heritage do not impact negatively on the capacity of local services (including water, waste water) or facilities such as car parking.”*

#### CDP16.5: Architectural Conservation Areas

- A: *To ensure that new developments within or adjacent to an ACA respect the established character context of the area and contribute positively to the ACA in terms of design, scale, setting and material finishes;*
- B: *To protect from demolition or removal and non-sympathetic alterations, existing buildings, structures, groups of structures, sites, landscapes and features such as street furniture and paving, which are considered to be intrinsic elements of the special character of the ACA;*
- C: *To ensure that all new signage, lighting, advertising and utilities to buildings within an ACA are designed, constructed and located in a manner that does not detract from and is complementary to the character of the ACA; and*
- D: *To ensure that external colour schemes in ACAs enhance the character and amenities of the area and reflect traditional colour schemes.”*

#### CDP16.8: Sites, Features and Objects of Archaeological Interest

- A: *To safeguard sites, features and objects of archaeological interest generally;*
- B: *To secure the preservation (i.e. preservation in situ or in exceptional cases preservation by record) of all archaeological monuments included in the Record of Monuments and Places as established under Section 12 of the National Monuments (Amendment) Act, 1994, and of sites, features and objects of archaeological and historical interest generally;*
- C: *In securing such preservation, to have regard to the advice and recommendations of the Department of the Culture, Heritage and the Gaeltacht;*
- D: *To have regard to the government publication Framework and Principles for the Protection of the Archaeological Heritage 1999 in relation to protecting sites, features and objects of archaeological interest; and*

E: *To advocate for greater financial assistance for the maintenance and improvement of features of archaeological interests in County Clare."*

#### CDP16.9: Newly Discovered Archaeological Sites

*"To protect and preserve archaeological sites discovered since the publication of the Record of Monuments and Places."*

#### CDP16.10: Zones of Archaeological Potential

*"To protect the Zones of Archaeological Potential located within both urban and rural areas as identified in the Record of Monuments and Places."*

#### CDP16.11: Archaeology and Infrastructure Schemes

*"To ensure that decisions relating to development (including infrastructure associated with broadband, telecommunications, renewable energy, major road/ rail infrastructure and other services) which may have implications for Recorded Archaeological Monuments/Sites, Zones of Archaeological Potential or undiscovered archaeology, are informed by an appropriate level of archaeological investigation undertaken by qualified persons."*

- 3.40. This impact assessment will therefore consider all of the classes of archaeological and architectural heritage assets defined above in order to ensure that direct and indirect impacts upon them as a result of the Proposed Development are properly assessed, in compliance with policies and objectives at international, national and local levels.

## ASSESSMENT METHODOLOGY

### Desk Based Assessment

- 3.41. The desk-based assessment was conducted to ascertain all historical and archaeological information relevant to the Application Site and the local area. All types of heritage assets were considered and assessed within a 2km study zone. The size of this study zone was selected to ensure that comprehensive and informative data was collated to characterise the direct and indirect effects that the Proposed Development may have on historical and archaeological assets within the local area.
- 3.42. Due to the nature of the records, some degree of overlap was possible, and some assets may have been repeated. However, where historic structures are recorded within both the RPS and the NIAH, efforts have been made to reduce duplication. Buildings of historic interest that are recorded within the NIAH are treated as having the same level of protection as those recorded as Protected Structures for the purposes of this assessment.
- 3.43. Historical databases and various archives were consulted to identify the designated assets and undertake the DBA. These assets were imported into ArcGIS Pro as shapefiles in order to determine their locations relative to the Application Site and produce the figures supporting this assessment. The main sources which were consulted include the:
- Record of Monuments and Places (RMP) held by the National Monuments Service (NMS);
  - Sites and Monuments Record (SMR);
  - National Inventory of Architectural Heritage (NIAH);
  - Record of Protected Structures (RPS);
  - Archaeological Survey of Ireland (ASI);
  - Database of Historic Gardens and Designed Landscapes (HGDL);
  - Database of Irish Excavation Reports<sup>9</sup>;
  - Historic Maps;
  - Aerial imagery via Google Earth, Bing Maps and ArcGIS Pro global mapping;
  - Cambridge University Collection of Aerial Photography;

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<sup>9</sup> <http://www.excavations.ie/>

- National Collection of Aerial Photography;
- <http://www.britainfromabove.org.uk/>;
- Open Topographic Data Viewer (LIDAR) at <https://dcenr.maps.arcgis.com/apps/webappviewer/>; and
- Placenames Database of Ireland.

## Map Regression Analysis

- 3.44. Analysis of historic maps can reveal the changes in landuse and field boundaries in the area and can highlight potential areas of archaeological interest that may have been lost in the subsequent years. Relevant maps were consulted to undertake this analysis as part of the desk-based assessment and site walkover survey.

## Aerial Photography and Placename Assessments

- 3.45. To identify potential archaeological features within the Application Site that are not recorded within the relevant databases, aerial photography of the land was examined in order to identify any cropmarks or markings within the Application Site that may be indicative of previously unknown features.
- 3.46. Similarly, a placename analysis of the baronies, townlands and parishes containing the land was undertaken as this can often determine the historical landuse associated with the Application Site even when other evidence of this usage has been lost.

## Assessment of Direct Effects

- 3.47. Potential direct effects during the construction phase are considered as physical disturbance of known or associated archaeological remains. These impacts can be caused through the construction processes within the footprint of the Development, including ancillary works such as access tracks. Direct impacts can affect both above ground and subsurface remains, which will both be considered within this assessment. The presence and character of any existing archaeological features will be identified within the site boundary, and the archaeological potential of the site assessed through a desk-based assessment of the surrounding archaeological resource and landscape. The significance of any impacts will be determined by considering the construction methodology within the Application Site and to what extent this would disturb any sub-surface remains.

## Assessment of Indirect Effects

- 3.48. The assets that were identified through the sources previously listed were assessed for their significance and sensitivity of their settings. The magnitude of the visual impacts upon these

assets was determined by considering the views and intervisibility shared with the Proposed Development, as well as the nature, character, date, extent, setting and surviving remains of the feature where relevant. Indirect effects were then assigned using this information on the following scale:

- Major
- Major to moderate
- Moderate
- Moderate to low
- Low
- Low to negligible
- Negligible

3.49. Indirect effects of 'moderate' or above are considered significant and appropriate mitigation measures have been recommended where appropriate to lower the potential impact.

## Visual Impact Assessment

3.50. A Zone of Theoretical Visibility (ZTV) was produced to identify sites with a greater potential for being indirectly impacted by the Proposed Development. The ZTV has been overlaid on the heritage assets within the study zones, to identify those that will potentially be visually impacted by the Proposed Development during the operational phase.

3.51. Digital Terrain Modelling sourced from digital height data derived from Ordnance Survey Ireland, with the viewer height set at 2m high was used to calculate the ZTV. The produced ZTV was 'bare earth' and therefore did not account for any elements in the landscape such as trees, hedgerows, walls or buildings that may help screen views, nor account for the influences of the weather upon any views.

## Site Visit

3.52. Walkover surveys were conducted at the Application Site during August 2021 and March 2022. The primary aim of the surveys was to identify any potential archaeological or historical features within the Application Site that are not recorded. The land and fields within the Application Site were documented photographically along with any possible features identified. The results of the surveys also considered available information on the known designated and non-designated sites within and close to the Application Site.

## Assessment Limitations

- 3.53. The consulted sources contain records of known archaeological and historic features. The record is not an exhaustive record of all surviving historic environment features and does not preclude the possible existence of archaeological remains of significance within the study zone, which are at present unknown or have been added to the records recently. It was assumed that official data held by public bodies was accurate and up-to-date. However, the national datasets were only partially available during this assessment, including the locations, names and references of the RMP sites but many of which did not have their descriptions available.

## The Importance of Setting

- 3.54. Setting can be important to the way in which historic assets or places are understood, appreciated and experienced.
- 3.55. Where development is proposed it is important to identify and define the setting of the heritage asset and to assess how development might impact upon this resource. Setting often extends beyond the property boundary, or 'curtilage', of an individual historic asset into a broader landscape context. Less tangible elements can also be important in understanding the setting. These may include function, sensory perceptions or the historical, artistic, literary and scenic associations of places or landscapes. In the light of this guidance, development proposals should seek to avoid or mitigate detrimental impacts on the settings of historic assets.

## BASELINE CHARACTERISATION

- 3.56. The following section outlines the historical and archaeological background within the extent of the study zones and the local area. This provides a clear depiction of the context and significance of the heritage assets that could potentially be impacted by the Proposed Development. The report outlines an assessment of the direct and indirect impacts of the Proposed Development and proposed mitigation measures. The potential for disturbing any remains within the footprint of the Proposed Development has been assessed and recommendations produced for any further investigative work.

### Archaeological Period Classifications

- 3.57. The period classifications below provide chronological context for the archaeological assets which are discussed as part of this report.
- Mesolithic (8000BC – 4500BC)
  - Neolithic (4500BC – 2500BC)
  - Bronze Age (2500BC – 500BC)
  - Iron Age (500BC – AD400)
  - Early Christian (AD400 – AD800)
  - Medieval (AD800 - AD1535)
  - Post Medieval & Modern (AD1535 onwards)

### Archaeological and Cultural Heritage Assets

- 3.58. The full list of assets identified within their respective study zones is presented within **Table 1: Appendix 3B**. A total of one NMSC, five HGDs, six historic buildings from the NIAH/RPS, and 91 sites within the RMP were identified within the 2km study zone (**Figure 3.1: Appendix 3A**). These assets have therefore been assessed for potential indirect effects within this report.
- 3.59. The assets identified within the study zones were considered along with the results of previous archaeological work, the site visit and map regression analysis, in order to assess the archaeological potential within the Application Site. These results informed part of the direct impacts assessment.



## Placenames Assessment

- 3.60. The names of townlands can sometimes have origins and meanings of historical importance and/or indicate features of interest within their boundaries that are not recorded by other means. This was done by consulting the Placenames Database of Ireland, which collates various historical sources regarding the names of townlands, in particular the Ordnance Survey Parish Namebooks<sup>10</sup>.
- 3.61. The Application Site is contained within the single townland of Coolshamroge. The name of the townland Coolshamroge derives from the Irish 'Cúil Seamróg' meaning corner or nook of shamrocks. It first appeared in 1586 as Cowlesamroge, then in 1703 Cooleshamroge, and by 1839 Cúil Seamróg.

## Map Regression Analysis

- 3.62. **Figure 3.2: Appendix 3A** contains the 6" historic OSI map of the site from 1829 – 1842, while **Figure 3.3: Appendix 3A** shows the 25" historic OSI map from 1897 – 1913. These maps show the progression of land use and field boundaries in the area, and can highlight potential areas of archaeological interest that may have been lost in the subsequent years.
- 3.63. The 6" map (**Figure 3.2: Appendix 3A**) shows that land within the Application Site appeared to be relatively uncultivated, particularly in the northern extent. The general area is defined by irregular field boundaries and rough terrain/vegetation, with no notable features present inside the site boundary other than a single field boundary.
- 3.64. The 25" map (**Figure 3.3: Appendix 3A**) shows that since its depiction on the 6" map, land within the Application Site appears to be more clearly in agricultural usage, with the area containing a number of new linear field boundaries and many fields no longer having rough vegetation depicted. Although two of these new boundaries are located inside the site boundary, no other features of interest are present within the Application Site.

## Aerial Photography

- 3.65. Since the depiction of the Application Site on OSI historic mapping, a number of field boundaries in the immediate area have been removed in order to regulate the field sizes and shapes, and facilitate their agricultural usage. The only other development visible on aerial imagery is a small area of quarrying present along the north of the Application Site boundary. No archaeological features or cropmarks of archaeological potential have been identified from a review of modern aerial photography on Google Earth, Bing Maps, World Imagery Wayback and ArcGIS Pro global mapping.

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<sup>10</sup> O'Donovan, J et al (1836) *Ordnance Survey Parish Namebooks (OD:AL)*.

- 3.66. No historical aerial images of land within the Application Site were identified within the consulted sources, including the National Collection of Aerial Photography (NCAP), Cambridge University Collection of Aerial Photography (CUCAP) and Britain from Above databases.

## Lidar Data

- 3.67. **Figure 3.4: Appendix 3A** contains the 2m DTM/DSM Lidar data of the Application Site, made publicly available by the Office of Public Works. This data was reviewed in order to identify the potential for hitherto-unknown archaeological features as well as identify the possible extents of known features.
- 3.68. The only clear internal features that show up within or near to the Application Site are the existing field boundaries themselves. No other features of possible interest are discernible within the lidar data.

## Local Archaeological Fieldwork / Previous Excavations

- 3.69. A search of the Database of Irish Excavation Reports<sup>11</sup> identified no previous archaeological fieldwork having been undertaken within or near to the Application Site. However, one archaeological event has been recorded within c. 1km of the Application Site boundary, which did not identify anything of archaeological interest. The entry for this within the Database of Irish Excavation Reports is as follows:

### 1999:037 – Ballyhannon South, Clare

*“Groundwork associated with the construction of a dwelling-house near the south-western quadrant of a well-preserved drystone cashel was monitored in December 1999. The substratum comprised sterile gravel, grey/brown, silty clay and loose limestone. The stripping of topsoil and the cutting of foundation trenches revealed no trace of material or activity of archaeological origin.”*

## Site Visit

- 3.70. An archaeological walkover survey of the lands and grid route for the wider Coolshamrock solar farm proposal was conducted in August 2021 and March 2022 by Paula Slaughter and Robert Mulraney of Neo Environmental. These surveys included the land proposed for this SID proposal, which constitutes a small proportion of the land intended for the wider solar farm, namely parts of Fields 2, 3 and 4 as described below. The surveys did not reveal any unknown heritage assets and no notable visibility with surrounding heritage assets was highlighted. Chosen plates from the photographic survey are referred to below and are contained within **Appendix 3C** attached to this assessment.

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<sup>11</sup> <https://excavations.ie>

- 3.71. Field 2 (**Plate 3: Appendix 3C**) is an 'L'-shaped field which was overgrown grassland, currently under grazing, and mainly flat, bounded by mature hedgerows. Nothing of archaeological note was observed.
- 3.72. Field 3 (**Plates 1, 2 & 4: Appendix 3C**) is a large, abnormally-shaped, undulating field with improved grassland currently used for pasture. It was bounded by mature hedgerows and an access track to the southeast. The south extent of the field was bounded by trees, while an area of modern quarrying was present outside the Application Site boundary, to its north. Nothing of archaeological note was observed.
- 3.73. Field 4 (**Plates 1 & 2: Appendix 3C**) was similarly improved grassland currently used for pasture and bounded by mature hedgerows with access road to the west. Nothing of archaeological note was observed.

## Geophysical Survey

- 3.74. A geophysical survey was carried out between the 10<sup>th</sup> and 14<sup>th</sup> October 2022 under licence (22R0336) from the Dept. of Housing, Local Government and Heritage. The scope of the survey was the land proposed for the wider Coolshamrock solar farm. As such, this therefore includes this SID proposal, which constitutes a small proportion of the land intended for the solar farm, namely parts of 'Fields 2, 3 and 4' as allocated within the survey report and consistent with field numbers used in the above site visit summary.
- 3.75. The results of the geophysical survey (**Appendix 3D: Geophysical Survey Report**) showed that within the boundary proposed for the substation and the 110kV loop in infrastructure, data was restricted to cultivation lines and geological features (shallow rock). These features are not considered to be of significance and do not indicate the potential for any further sub-surface remains.

## ASSESSMENT OF DIRECT EFFECTS

### Known Archaeological and Heritage Assets

- 3.76. There are no recorded sites within the RMP, RPS and NIAH that are within or near to the Application Site that could be physically impacted by the Proposed Development. In addition, no features of archaeological interest were identified during the investigations, including the baseline analysis, site visit, or geophysical survey. As such, **no direct impacts** upon known archaeological and heritage assets are anticipated.

### Archaeological Potential

- 3.77. Due to the absence of any recorded archaeological or architectural features within the Application Site, it is considered to have no confirmed internal indicators for archaeological potential. Results from the geophysical survey indicate that sub-surface remains within the Application Site are likely to be limited to cultivation marks.
- 3.78. Similarly, results from the site walkover survey and analysis of historic maps, aerial imagery, lidar data and other sources likewise do not indicate any heightened probability for significant remains in the site. However, the surrounding heritage assets within the RMP in the 2km study zone suggest demonstrable evidence for prehistoric, medieval and post-medieval settlement activity which may have extended into the vicinity of the Application Site.
- 3.79. While no evidence for such remains from these periods is present inside the site, this potential cannot be entirely ruled out.

### Ground Disturbance from Construction Methods

- 3.80. Different levels of intrusion and disturbance are anticipated for different construction elements. As such, the potential for impacting upon sub-surface remains is dependent on the type and scale of each construction element. Construction involving topsoil stripping has, in general, a lower potential for impacting upon sub-surface remains below the archaeological horizon, but retains a similar potential for encountering archaeological remains as construction involving deeper excavation work.
- 3.81. The majority of the Proposed Development constitutes the areas for the substation and compound, cable access track, 110kV underground cables and overhead line towers, resulting in an irregular shape for overall boundary (**Figure 3 of Volume 2**). A worst-case scenario of complete disturbance of land within the proposed boundary is assumed as a result of the Proposed Development, with limited opportunities for flexible and non-intrusive construction methods. However, the previous land uses associated with agriculture (as shown in the cultivation lines from the geophysical survey data) and modern quarrying suggest that the land has been subject to disturbance which may impact the potential for the survival of sub-

surface remains of significance. Combined with the relatively small Application Site size, the likelihood for the Proposed Development to encounter or impact sub-surface archaeology of significance is considered to be **Low**.

## ASSESSMENT OF INDIRECT EFFECTS

- 3.82. The ZTV was overlain onto the heritage assets map in order to identify those which have a greater potential to be visually impacted by the Proposed Development. The ZTV does not account for intervening hedgerows, trees or built structures, which will limit the intervisibility between the building/monument and the Proposed Development.
- 3.83. Within their respective study zones, a total of one NMSC, four HGDs, five historic buildings from the NIAH/RPS, and 83 sites within the RMP are located within the ZTV. These assets are therefore assessed for indirect impacts below.

### National Monuments in State Care

#### Quin Abbey (NA01)

- 3.84. Quin Abbey is a National Monument in State Care located c. 1.85km to the east of the Application Site. It is described within the RMP as:

*“Situated on a W-facing slope on the E bank of the River Rine at the NE edge of Quin village, Quin Friary (known locally as Quin Abbey) is built on the burnt-out ruins of an Anglo-Norman de Clare castle (CL042-027001-). In 1280, the Anglo-Norman Sir Thomas de Clare commenced work on the castle at Quin. In c. 1285/7 Covea MacNamara stormed and burned the castle in revenge for the death of a chief named ‘O’Liddy “of the broad shield” and his brother. The remains of the earlier castle are still visible as they were incorporated into the friary, with the foundations of the rounded NE, SW and SE corner towers of the curtain wall surviving to varying degrees. The lower portions of the curtain wall adjacent to the NE tower also survive. [...] Despite its suppression and suffering repeated attack in the 16th century, substantial remains of the friary survive.*

*The remains consist of a church at S with a transept added at the W end of the S wall and a sacristy N of the chancel. A cloister lies to the N with the dormitory, kitchen/refectory and chapter room arranged around it to the W, N and E respectively. The external walls of the W, N and E ranges have a significant base batter (H 3.65m) and the windows and door are recessed into it. The church (int. dims. 35.75m E-W; 7.1-7.15m N-S) comprises a nave and chancel with a tall slender crossing tower and belfry. The S and E walls are unusually wide (2.8m) as they utilise the foundations of the earlier castle. The SW corner of the church occupies the original corner of the keep. A small walkway in the SW corner of the church leads into the graveyard through a small passage (Wth 1.1m). A spiral stairs is accessed from this passage and leads to the roof. It is lit by two slit windows in the W wall face and two in the S.”*

- 3.85. Due to the substantial standing remains and its beneficial setting on the east bank of the River Rine, the abbey and its surrounding grounds are considered to be sensitive to views of any development which may impact upon this setting, particularly anything that would interfere with its visual relationship with the river, surrounding architecture and landscape features the

village of Quin itself. The numerous RMP sites located within the direct setting of the asset further contribute to the group value and high significance/sensitivity of the NMSC. While the Application Site itself does not make any meaningful contribution to the setting of the friary, views of this may still have the potential to impact upon it.

- 3.86. Although the asset is considered to be potentially sensitive to any views and intervisibility with the Proposed Development, such views were not identified during the walkover survey and are not expected to be possible due to intervening vegetation/field boundaries and the built environs of Quin. Some degree of intervisibility from third points along roads in the surrounding landscape cannot be ruled out, but in most cases would be expected to be similarly screened by vegetation and buildings. Any possible intervisibility would be infrequent and not considered at all harmful to the heritage value of the friary or its setting. Indirect effects are therefore anticipated to be **Low to negligible**.

## Historic Gardens and Designed Landscapes

### Glebe House (NA02)

- 3.87. Glebe House is located c. 1.75km to the northwest of the Application Site. It was depicted on the Ordnance Survey First Edition 6" Series as a group of small fields surrounding a principal building and range buildings labelled as Glebe House. Several other features were discernible within the asset, including a walled garden, gate lodge and access track connecting the core buildings with the local road to its east.
- 3.88. Since its depiction on the historic map, the original footprint of the HGDL is partially visible but some of its internal field boundaries have been removed in order to enlarge the now arable fields in this location. Much of the original woodland, range buildings and other features have similarly been removed, although the principal building remains. In addition, some modern residential development has been constructed within the eastern extent of the HGDL boundary. These changes have somewhat compromised the setting of Glebe House and partially altered its character. The core of the HGDL is considered to be somewhat sensitive to visual impacts, but its wider grounds are not.
- 3.89. Views and intervisibility between Glebe House and the Application Site are expected to be almost entirely screened by intervening buildings and vegetation, while no views were identified to be possible during the site visit. As a result, impacts upon Glebe House are anticipated to be **Negligible**.

### Ballyhannan House (NA04)

- 3.90. Ballyhannan House is located c. 1km to the southeast of the Application Site. It was not depicted on the Ordnance Survey First Edition 6" Series, which instead showed this area as a mix of cultivated and uncultivated fields on the north bank of the River Rine, with a 'fort'/enclosure depicted within its extent.

- 3.91. The modern composition of the HGDL includes a series of parkland areas adjacent to the river, with a principal house visible in the core of the asset (Ballyhannon House NA09) and with unrestricted access and views over the river itself. To the north and west directions of the house are associated range buildings as well as more modern, larger agricultural structures. Due to the nature of the HGDL, it is considered to be sensitive to any visual impacts which occur on the principal house or its parkland setting that connects it to the River Rine. However, it is notably less sensitive to impacts which occur from the northern and western directions, including the Application Site, which would not notably interfere with this relationship.
- 3.92. Views and intervisibility between the asset and the Proposed Development are not predicted to be likely due to the screening effects from numerous agricultural and residential buildings, as well as vegetation and field boundaries, within the relatively flat intervening land. As a result, indirect effects upon the HGDL are anticipated to be **Negligible**.

#### Ballykilty House (NA05)

- 3.93. Ballykilty House is located c. 1.65km southeast of the Application Site. It was depicted on the Ordnance Survey First Edition 6" Series as a series of large parkland areas and blocks of woodland surrounding a principal building and core of range buildings, formal gardens and tree-lined avenue.
- 3.94. Since its depiction on the historic map, the HGDL has retained much of its overall footprint and character, with the principal house, range buildings, outline of the formal gardens, internal field boundaries and part of the original tree-lined avenue remaining. However, aerial imagery shows that sections of woodland have been cleared and its accesses notably changed, with some agricultural and residential development also having been constructed within the boundary of the asset. The core of the HGDL, including the curtilage of the principal building, range buildings and footprint of the former formal gardens, is considered to be sensitive to visual impacts and especially where these interfere with their relationship with one another or with the River Rine to the north. However, its sensitivity to any development within the Application Site at this distance is considered to be low.
- 3.95. Views and intervisibility with the Proposed Development are expected to be very limited due to the screening effects from intervening woodland and other vegetation, as well as numerous agricultural and residential buildings, over the relatively flat intervening land. As a result, indirect effects upon the HGDL are anticipated to be **Negligible**.

#### Quinville Abbey (NA06)

- 3.96. Quinville Abbey is located c. 1.65km to the east-northeast of the Application Site. It was depicted on the Ordnance Survey First Edition 6" Series as a small demesne with a principal house, associated orchard, formal gardens, parkland area and pathways connecting to the local road on its eastern side.



- 3.97. Since its depiction on the historic map, the HGDL has been fundamentally altered and is now defined by modern structures. No significant remnants of the original asset are visible and its setting is not considered to be at all sensitive to potential visual impacts upon it. In addition, no views or intervisibility with the Proposed Development are expected to be possible at this distance due to screening from intervening vegetation, field boundaries and buildings. Indirect effects are therefore anticipated to be **Negligible**.

## Historic Buildings within the NIAH/RPS

### Kilbreckam Silver Mines (NA07)

- 3.98. Kilbreckam Silver Mines are the ruined remains of silver mines located c. 1.6km to the north of the Application Site. They are described within the NIAH as:

*“Remains of silver mines, in use c. 1775, disused, pre-1921. Detached single-bay three-storey rubble stone building, now in ruins. Freestanding circular-profile rubble stone chimney with red brick dressings, now overgrown.”*

- 3.99. Their primary heritage value is derived from their architectural merit and their link with the social and technical history of the local area. As a result, while the remains may be partly sensitive to visual impacts which occur on its immediate formerly industrial setting, they are not considered to be particularly sensitive to visual impacts occurring from development within the Application Site.
- 3.100. The Proposed Development itself is unlikely to be visible from the ground level setting of the asset due to intervening vegetation and buildings. Similarly, no views with the structures were identified to be possible during the site visit. However, due to the height of the standing chimney, some amount of intervisibility from third points within the landscape cannot be ruled out. Nonetheless, such intervisibility would not be expected to cause any harm to the ruins or their setting. Impacts upon the asset are therefore anticipated to be **Negligible**.

### Ballyhannon House (NA09)

- 3.101. Ballyhannon House is a protected structure, currently still in use, located c. 1km to the southeast of the Application Site. It is recorded within the RPS as a:

- 3.102. *‘Detached L-plan three-bay two-storey house, built c. 1820, with recessed single-bay two-storey wing to right hand side. Hipped slate roof with dentilated eaves and rendered chimneystacks. Roughcast rendered walls with render quoins. Segmental-arched door opening with timber panelled door, flanking sidelights and radial fanlight. Timber panelled door. Retaining interior shutters. Group of detached two-bay single-storey outbuildings to site. Cut-stone piers with moulded capping having cast-iron gates and railings’.*

- 3.103. As the asset comprises the principal building of the Ballyhannon House HGDL previously assessed (NA04), impacts upon the protected structure within the core of this HGDL have

already been considered. As with the overall HGDL, views and intervisibility between the asset and the Proposed Development are not predicted to be likely due to the screening effects from numerous agricultural and residential buildings, as well as vegetation and field boundaries, within the relatively flat intervening land. As a result, indirect effects upon the protected structure are similarly anticipated to be **Negligible**.

### Historic Buildings within Quin (NA10 – 12)

- 3.104. Three recorded historic buildings from the NIAH are located within the village of Quin and c. 1.65 – 1.75km to the east of the Application Site. These are the Milestone (NA10), Quin Bridge (NA11) and Saint Finghin's Church (NA12) situated in relative proximity to one another and along the R469. These assets are described within their relative NIAH entries as:

*"Freestanding limestone cut-stone milestone with inscription, dated 1828."* (NA10)

*"Triple-arch rubble stone hump-back road bridge over river, built c. 1800, with cut-stone voussoirs, keystones and V-cutwaters. Rubble stone parapets, haunches and abutments with cut-stone parapet copings. Flights of cut stone steps leading to river bank."* (NA11)

*"Remains of detached four-bay single-storey rubble stone single-cell church, dated 1278, with single-bay three-stage crenellated tower to left gable. Now in ruins. Rebuilt after destruction of earlier church by Thomas de Clare. Cut-limestone gate piers with string courses, copings and cast-iron gates."*

- 3.105. While the roadside nature and setting of the milestone is not considered to be sensitive to visual impacts from the Proposed Development, the bridge and church are situated in proximity to the Quin Abbey NMSC and share direct visual relationships with one another. As a result, although each structure is adjacent to substantial modern development, especially on their southern and western sides, they benefit from their visual links with the friary and are considered to be sensitive to any views which may interfere with this. However, the presence of this substantial modern development adjacent to the west of these features somewhat compromises their sensitivity to views and intervisibility from this direction, including the Application Site.
- 3.106. The urban environs also serve to screen views between these points, although some degree of intervisibility from third points in the wider landscape away from Quin cannot be entirely ruled out for the church due to its more elevated nature. Nonetheless, any such intervisibility for the church is not predicted to cause any notable harm to the asset or its setting, as it would not interfere with its relationship with the friary or the town of Quin. Indirect effects upon the historic buildings NA10 – 12 are therefore anticipated to be **Negligible**.

### Record of Monuments and Places

- 3.107. There is a total of 91 archaeological sites in the RMP that are within the 2km study zone. These sites can be used to evaluate the potential for archaeological remains within the Application

Site. However, although 83 of these RMP sites lie within the ZTV, many typically lack standing remains or are considered to be less sensitive to possible visual impacts than those designated as NMSCs. In addition, in the case of several RMPs within the grounds of Quin Abbey, these individual assets are less sensitive to visual impacts from the proposal but contribute to the overall group setting as previously appraised as part of Quin Abbey above. As such, indirect effects upon many RMP sites within the calculated ZTV are anticipated to be **Negligible**. However, exceptions such as monuments close to the Application Site or those with well-preserved remains or settings will be assessed below.

### Children's Burial Ground and Building (NA16/NA17)

- 3.108. The Children's Burial Ground (NA16) and Building (NA17) are two adjacent RMP sites located c. 0.55 and c. 0.5km to the north of the Application Site respectively. The burial ground is described within its database entry as:

*"Raised earthen platform used as a children's burial ground. It is sub-rectangular in shape 24m NE-SW, 13m NW-SE and is 0.6m-0.8m high. There is no clear indication of an entrance. Occasional set stone markers, 0.2m high at most, mark graves. However, the most prominent feature of the site is a series of low earthen hummocks (1m across and 0.4m high on average) with stones set into their top and sides here and there; these hummocks probably represent individual graves or a group of graves. At a distance of 30m to NE is the location for the CBG on 1921 OS map. Here, an unenclosed area of ground 22m NW-SE by 17m NE-SW, contains some crude markers 0.2m high at most. This area is adjacent to SW exterior of a small paddock (25m across). Machinery has caused some damage to the ground and part of a human skull could be seen lying on the ground."*

- 3.109. The description for the building is not currently available from its database entry, but is labelled as 'school' on the 1842 OSI 6" map. It is not clear how much of the asset now remains.
- 3.110. No views or intervisibility with the Application Site or the Proposed Development are expected to be possible from the graveyard or building due to intervening vegetation present across the fields to the south of the assets. No such views were identified to be possible during the site visit due to this vegetation and it is predicted that these existing screening effects will be sufficient to prevent this possibility. Impacts upon the assets are therefore anticipated to be **Negligible**.

### Enclosures (NA38-40 & 98)

- 3.111. A group of four enclosures are situated c. 0.30 – 0.70km to the west-southwest of the Application Site. The descriptions for the enclosures are not currently available from their database entries but from aerial imagery the assets appear to have visible standing remains located on uncultivated grassland on the north side of the local road. The standing remains, visual relationships between the enclosures, and largely undeveloped setting indicate that the features are potentially sensitive to visual impacts from the proposal.

- 3.112. Dense vegetation throughout their containing field, as well as to the north and northeast, is expected to screen the vast majority of possible views and intervisibility with the Proposed Development, although some level of infrequent and partial intervisibility cannot be ruled out entirely. Such limited intervisibility would not be particularly harmful to the group setting of the enclosures but may have some impact if possible. Indirect effects upon the group of enclosures and their shared setting are anticipated to be **Low to negligible**.

#### Enclosure (NA42) and Ringfort-cashel (NA45)

- 3.113. This enclosure and ringfort are located within fields to the southeast of the Application Site, specifically c. 0.55 and 0.35km from its boundary respectively. The descriptions for the assets are not currently available from their database entries but from aerial imagery both assets appear to have some level of earthworks remaining and surrounded by woodland. As a result, both assets are expected to be potentially sensitive to visual impacts, although this sensitivity is somewhat reduced by the presence of modern residential and agricultural development located on the eastern sides of their settings.
- 3.114. View and intervisibility with the Proposed Development were not identified to be possible for the assets, but some degree of intervisibility cannot be ruled out. Such views would be potentially harmful to the settings of the assets but the presence of woodland around the settings of both features will help to screen and mitigate possible views and intervisibility. As a result, indirect effects are anticipated to be **Low to negligible** for enclosure NA42 and ringfort NA45.

#### Ringfort-cashel (NA89) and Enclosure (NA97)

- 3.115. This ringfort and enclosure are located within fields to the northeast of the Application Site, specifically c. 0.3 and 0.2km from its boundary respectively. The descriptions for the assets are not currently available from their database entries but from aerial imagery ringfort NA89 appears to have notable earthwork remains defining its extent within the northwest corner of the field. Enclosure NA97 conversely appears to have nothing on aerial imagery to denote its location or the likelihood of any standing remains. As a result, ringfort NA89 is expected to be potentially sensitive to visual impacts but not enclosure NA97.
- 3.116. View and intervisibility with the Proposed Development were not identified to be possible for the assets, but due to the relatively flat intervening land and open fields in the surrounding area, with limited woodland and other screening effects, some degree of intervisibility cannot be ruled out. Such views would not be harmful to NA97 due to its absence of standing remains, but some degree of impact may be possible for NA89. As a result, indirect effects are anticipated to be **Low to negligible** for ringfort NA89 and **Negligible** for enclosure NA97.

## Cumulative Indirect Effects

- 3.117. Cumulative visual impacts have been assessed in detail within **Technical Appendix 1: Landscape and Visual Impact Assessment**. The assessment states:

*“The potential for cumulative views of the proposed infrastructure with the planning reference 22586 would be likely as both would be contained within the same development. The potential for cumulative views of the proposed infrastructure with the approved planning reference 19180 from the seven viewpoints and local area was found to be limited, as many potential views are hindered by distance, localised variations in the topography and screening by natural and built elements across the local landscape. The potential for cumulative views of the proposed infrastructure with the approved solar farm planning reference 171001, 20562 and 21915 from the seven viewpoints and local area was found to be even more limited due to the presence of the M18 road and low-lying surrounding lands.*

*[...]*

*Overall, the addition of the proposed infrastructure will increase views of renewable energy infrastructure within the locality, with most affected receptors occurring on the western side of the Fergus Estuary. These receptors will experience varied combined and successive cumulative views, with all having closer views of the approved planning reference 171001, while views of the proposed infrastructure are limited to its secluded and enclosed setting further away on the opposite side of the estuary. Sequential views are limited to those travelling along the regional road and local roads due to the network of roads between each development.*

*Here, the addition of the proposed infrastructure will result in **Minor adverse** cumulative views”*

- 3.118. As the Landscape and Visual Impact Assessment concluded that no significant cumulative landscape or visual effects will occur as a result of the Proposed Development, no cumulative visual impacts are expected to occur on any of the surrounding heritage assets previously identified.

## Summary of Indirect Effects

- 3.119. There was one NMSC identified within the 5km study zone around the Proposed Development, which also lies inside the calculated ZTV. This was Quin Abbey (NA01), for which **Low to negligible** indirect effects are anticipated.
- 3.120. There were four HGDs identified within the 5km study zone that are within the ZTV of the Proposed Development. Indirect effects are anticipated to be **Negligible** for all four of these assets (NA02 & NA04 – 06).

- 3.121. There were five historic structures within the RPS/NIAH that are within the 2km study zone and the ZTV of the Proposed Development. Indirect effects are anticipated to be **Negligible** for all five of these assets (NA07 & NA09 – 12).
- 3.122. There were 83 archaeological sites identified in the RMP that are within the 2km study zone and the ZTV of the Proposed Development. **Low to negligible** indirect effects are anticipated for seven of these sites (NA38 – 40, NA42, NA45, NA89 & NA98), while **Negligible** indirect effects are anticipated for the other 76 (NA13 – 33, NA35 – 37, NA43 – 44, NA46, NA48 – 60, NA62 – 63, NA65 – 78, NA80 – 88, NA90 – 97 & NA99 – 101).
- 3.123. As the Landscape and Visual Impact Assessment concluded that no notable cumulative landscape or visual effects will occur as a result of the Proposed Development, no cumulative visual impacts are expected to occur on any of the surrounding heritage assets previously identified.

## MITIGATION MEASURES

### Direct Effects upon Known Assets

- 3.124. There are no recorded sites within the RMP, RPS and NIAH that are within or near to the Application Site that could be physically impacted by the Proposed Development. In addition, no features of archaeological interest were identified during the investigations, including the baseline analysis, site visit, or geophysical survey. As such, no direct impacts upon known archaeological and heritage assets are anticipated **and no specific mitigation measures will be required for the protection or recording of any known remains.**

### Archaeological Potential

- 3.125. Due to the absence of any recorded archaeological or architectural features within the Application Site, it is considered to have no confirmed internal indicators for archaeological potential. Results from the geophysical survey indicate that sub-surface remains within the Application Site are likely to be limited to cultivation marks, although the surrounding heritage assets within the RMP in the 2km study zone suggest demonstrable evidence for prehistoric, medieval and post-medieval settlement activity which may have extended into the vicinity of the Application Site. While no evidence for such remains from these periods is present inside the site, this potential cannot be entirely ruled out.
- 3.126. Previous land uses associated with agriculture (as shown in the cultivation lines from the geophysical survey data) and modern quarrying suggest that the land has been subject to disturbance which may impact the potential for the survival of sub-surface remains of significance. Combined with the relatively small Application Site size, the likelihood for the Proposed Development to encounter or impact sub-surface archaeology of significance is considered to be low.
- 3.127. In consideration of the above, **it is recommended that no specific further pre-determination works would be necessary in relation to archaeology and heritage.** However, it is noted that a programme of post-consent test trenching evaluation was previously recommended as part of the archaeological impact assessment for the proposed Coolshamrock solar farm application, the scope of which includes land within this Application Site. As such, **land within the substation boundary should be similarly subject to the same evaluation by post-consent test trenching,** ideally inclusive within the same programme and licence of work as the wider solar farm test trenching.
- 3.128. Such evaluation, as managed by a qualified archaeologist, would serve to verify the results of the geophysical survey and ensure that no hitherto-unknown remains of significance are present within the Application Site. This will also enable any hitherto-unknown sub-surface remains present within the Application Site to be identified and preserved by record

(including the potential for further excavation/fieldwork) or *in-situ*, as appropriate. Any required archaeological work is at the discretion of the NMS and Clare County Council.

## Indirect Effects

- 3.129. Indirect effects upon the surrounding heritage assets have been assessed as overall Low to negligible. **Therefore, no specific mitigation is considered to be required for the reduction of any visual impacts.**



## RESIDUAL EFFECTS

- 3.130. There are no recorded sites within the RMP, RPS and NIAH that are within or near to the Application Site that could be physically impacted by the Proposed Development. In addition, no features of archaeological interest were identified during the investigations, including the baseline analysis, site visit, or geophysical survey. As such, no direct impacts upon known archaeological and heritage assets are anticipated and no specific mitigation measures will be required for the protection or recording of any known remains. **No residual direct effects upon known remains will therefore occur.**
- 3.131. Following the implementation of an appropriate archaeological programme of works as described above, measures will be in place for the verification of geophysical survey results as well as mechanisms for the full recording and/or preservation of any sub-surface remains of significance that are identified within the Application Site. As such, residual direct effects upon hitherto-unknown archaeology are anticipated to be **Negligible.**
- 3.132. As no mitigation is expected to be required for indirect effects, residual indirect effects would be considered to be unchanged at **Low to negligible.**

## SUMMARY

- 3.133. Neo Environmental Ltd has been appointed by Renewable Energy Systems (RES) Ltd to undertake an Archaeology & Architectural Heritage Impact Assessment for a Strategic Infrastructure Development Application for a new 110kV Substation to feed into the existing Drumline-Ennis 110kV overhead line circuit. The Substation and 110kV loop in infrastructure is situated within the townland of Coolshamroge, Ennis, Co. Clare. The Substation is to facilitate the Manusmore Solar Farm (PA Ref: 20562), the Manusmore Solar Farm Extension (PA Ref: 21915) and the Coolshamrock Solar Farm (PA Ref: 22586).
- 3.134. The desk-based assessment was conducted to ascertain all historical and archaeological information relevant to the Application Site and the local area. All types of heritage assets were considered and assessed within a 2km study zone. The size of this study zone was selected to ensure that comprehensive and informative data was collated to characterise the direct and indirect effects that the Proposed Development may have on historical and archaeological assets within the local area. Baseline information was also obtained through a site walkover survey, map regression analysis, placenames analysis, aerial photography, geophysical survey and consultation with relevant records and databases.
- 3.135. There are no recorded sites within the RMP, RPS and NIAH that are within or near to the Application Site that could be physically impacted by the Proposed Development. In addition, no features of archaeological interest were identified during the investigations, including the baseline analysis, site visit, or geophysical survey. As such, no direct impacts upon known archaeological and heritage assets are anticipated **and no specific mitigation measures will be required for the protection or recording of any known remains.**
- 3.136. Results from the geophysical survey indicate that sub-surface remains within the Application Site are likely to be limited to cultivation marks, although the surrounding heritage assets within the RMP in the 2km study zone suggest demonstrable evidence for prehistoric, medieval and post-medieval settlement activity which may have extended into the vicinity of the Application Site. While no evidence for such remains from these periods is present inside the site, this potential cannot be entirely ruled out. Previous land uses associated with agriculture (as shown in the cultivation lines from the geophysical survey data) and modern quarrying suggest that the land has been subject to disturbance which may impact the potential for the survival of sub-surface remains of significance. Combined with the relatively small Application Site size, the likelihood for the Proposed Development to encounter or impact sub-surface archaeology of significance is considered to be low.
- 3.137. In consideration of the above, **it is recommended that no specific further pre-determination works are necessary in relation to archaeology and heritage.** However, land within the substation boundary should be subject to the same evaluation by post-consent test trenching as has been recommended for the wider Coolshamrock Solar Farm (Planning Ref No. 22/586), ideally inclusive within the same programme and licence of work as the wider solar farm test trenching.

- 3.138. Indirect effects upon the surrounding heritage assets have been assessed as overall Low to negligible in the worst case. Therefore, **no specific mitigation is considered to be required for the reduction of any visual impacts upon heritage assets.**

### Compliance with Relevant Policies

- 3.139. This assessment has been conducted to meet the criteria set out by the NMS and the DAHG (now the Department of Culture, Heritage and the Gaeltacht), and has been conducted to the relevant IAI standards.
- 3.140. The Proposed Development has been considered in relation to international, national and local policies throughout the design process. The Development has been assessed in compliance with the heritage protection strategies outlined within the Planning and Development Act, Heritage Act and National Monuments Act. As such, the full array of archaeological and architectural heritage features at risk of potential impacts from the Proposed Development have been identified from the NMS, RMP, RPS and NIAH sources. Each asset identified has been assessed for impacts that may constitute interference or harm to their character or setting, in line with the relevant policy and guidance.
- 3.141. With the implementation of appropriate mitigation, the Proposed Development will not significantly affect any known or hitherto-unknown heritage assets or their settings, and complies with the relevant policies and guidance at both national and local levels.

## LIST OF APPENDICES

### Appendix 3A – Figures

- Figure 3.1 – Heritage Assets within 2km
- Figure 3.2 – Historic 6" OSI Map (1829 – 1842)
- Figure 3.3 – Historic 25" OSI Map (1897 – 1913)
- Figure 3.4 – Lidar Data

### Appendix 3B – Tables

### Appendix 3C – Plates

### Appendix 3D – Geophysical Survey Report



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