

MWP

Chapter 13 Landscape and Visual Assessment

Carrownagowan 110kV Grid Connection

13. Landscape and Visual Assessment

13.1 Introduction

This chapter considers the potential effects on the landscape and visual receptors, arising from the Proposed Development. A full description of the Proposed Development is provided in **Chapter 2** Description of the Proposed Development of this Environmental Impact Assessment Report (EIAR).

The Proposed Development consists of a Grid Connection, approximately 25 km in length, from the consented Carrownagowan Wind Farm substation which will be connected via an underground grid connection cable to the existing ESB owned 110kV substation at Ardnacrusha, County Clare.

In terms of the potential effects which are most relevant to the Landscape and Visual Assessment, effects are most likely during the construction stage during the cable laying, as opposed to the operational phase.

The assessment comprises:

- A review of the existing receiving environment;
- Prediction and characterisation of impacts and their likely effects;
- Evaluation of the significance of likely effects; and
- Consideration of mitigation measures, where appropriate.

13.1.1.1 Competency of Assessor

This Landscape and Visual Assessment was carried out by Evelyn Sikora, BA MA, MILI. She has nine years' experience in Landscape and Visual Assessment (LVIA) and has worked on the Landscape and Visual assessment for a range of wind energy developments through Ireland, from single turbine developments to Strategic Infrastructure Developments. She also has experience in a range of other LVIA projects including solar energy, infrastructure, flood relief, residential, commercial and recreation projects. Oversight of the chapter was provided by Declan O' Leary, CMLI, MILI, Managing Director of Cunnane Stratton Reynolds.

13.2 Methodology

The assessment is in accordance with the methodology prescribed in the *Guidelines for Landscape and Visual Impact Assessment, 3rd edition*, (Landscape Institute and the Institute for Environmental Management and Assessment, 2013) hereafter referred to as the GLVIA (2013).

The GLVIA (2013) outlines the assessment process, which combines judgements on the sensitivity of the resource, and the magnitude of the change as a result of the Proposed Development. These are then combined to reach an assessment of the significance of the effect.

Another key distinction to make is that in the GLVIA methodology, a distinction is made between landscape effects and the visual effects of a Proposed Development.

Ireland is a signatory to the European Landscape Convention (ELC). The ELC defines landscape as 'an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors'. This definition is important in that it expands beyond the idea that landscape is only a matter of aesthetics and

visual amenity. It encourages a focus on landscape as a resource in its own right - a shared resource providing a complex range of cultural, environmental and economic benefits to individuals and society.

13.2.1 Guidance

The GLVIA (2013) notes that as a cultural resource, the landscape functions as the setting for our day-to-day lives, also providing opportunities for recreation and aesthetic enjoyment and inspiration. It contributes to the sense of place experienced by individuals and communities and provides a link to the past as a record of historic socio-economic and environmental conditions. As an environmental resource, the landscape provides habitat for fauna and flora. It receives, stores, conveys and cleans water, and vegetation in the landscape stores carbon and produces oxygen. As an economic resource, the landscape provides the raw materials and space for the production of food, materials (e.g. timber, aggregates) and energy (e.g. carbon-based fuels, wind, solar), living space and for recreation and tourism activities.

The GLVIA (2013) also notes that landscape is not unchanging. Many different pressures have progressively altered familiar landscapes over time and will continue to do so in the future, creating new landscapes. For example, within the receiving environment, the environs of the Proposed Development have altered over the last thousand years, from wilderness to agriculture, forestry and settlement.

Many of the drivers for change arise from the requirement for development to meet the needs of a growing population and economy. The concept of sustainable development recognises that change must and will occur to meet the needs of the present, but that it should not compromise the ability of future generations to meet their needs. This involves finding an appropriate balance between economic, social and environmental forces and values.

The reversibility of change is an important consideration. If change must occur to meet a current need, can it be reversed to return the resource (in this case, the landscape) to its previous state to allow for development or management for future needs. It should be noted that the Proposed Development can be considered reversible as the removal of the underground cable can be carried out with minimal landscape and visual effects.

Climate change is one of the major factors likely to bring about future change in the landscape, and it is accepted to be the most serious long-term threat to the natural environment, as well as economic activity (particularly primary production) and society. The need for climate change mitigation and adaptation, which includes the management of water and more extreme weather and rainfall patterns, is part of this.

13.2.1.1 Key Guidance Documents

The methodology for assessment of the landscape and visual effects is informed by the following key guidance documents, namely:

- *Guidelines for Information to be Contained in Environmental Impact Assessment Reports* (EPA, 2022); and
- *Guidelines for Landscape and Visual Impact Assessment*, 3rd Edition 2013, published by the UK Landscape Institute and the Institute of Environmental Management and Assessment (hereafter referred to as the GLVIA).

This guidance is authored by the Landscape Institute in the UK and the IEMA, which contains a network of members in UK and Ireland and internationally. The guidance was prepared within the parameters of relevant EU directives at the time and is updated, where necessary, by Landscape Institute bulletins online. The GLVIA 2013 is used internationally and is the industry standard for LVIA in Ireland.

13.2.1.2 Other Policy Documents

- *Wind Energy Development Guidelines* (Department of the Environment, Heritage and Local Government 2006)
- *Wind Energy Development Guidelines Public Consultation Draft* (Department of Housing, Planning and Local Government 2019)
- *Clare County Development Plan 2023-2029, Interim Version*. The Clare County Development Plan 2023-2029 was adopted by the Elected Members of Clare County Council at a Special Meeting on 9th March 2023. The Plan came into effect 6 weeks from the date of adoption, on 20th April 2023. Note that a final adopted Clare County Development Plan 2023-2029 is currently being prepared and graphically designed and therefore the current version available is called 'Interim Version of the Clare County Development Plan 2023-2029'. It is also noted that a final Ministerial Direction was issued on 3 August 2023 but that the Ministerial Direction does not have any effect on the Proposed Development,

References are also made to the 'Landscape and Landscape Assessment – Consultation Draft of Guidelines for Planning Authorities' document, published in 2000 by the Department of Environment, Heritage and Local Government.

13.2.2 Landscape and Visual Assessment Process

The GLVIA 2013 (3rd Edition) outlines the assessment process, which combines judgements on the sensitivity of the resource, and the magnitude of the change as a result of the Proposed Development. These are then combined to reach an assessment of the significance of the effect.

Another key distinction to make is that in the GLVIA methodology, a distinction is made between landscape effects and the visual effects of a Proposed Development.

'Landscape' results from the interplay between the physical, natural and cultural components of our surroundings. Different combinations of these elements and their spatial distribution create distinctive character of landscape in different places. 'Landscape character assessment' is the method used in LVIA to describe landscape, and by which to understand the potential effects of a development on the landscape as 'a resource'. Character is not just about the physical elements and features that make up a landscape, but also embraces the aesthetic, perceptual and experiential aspects of landscape that make a place distinctive.

Views and 'visual amenity' refer to the interrelationship between people and the landscape. The GLVIA (2013) prescribes that effects on views and visual amenity should be assessed separately from landscape, although the two topics are inherently linked. Visual assessment is concerned with changes that arise in the composition of available views, the response of people to these changes and the overall effects on the area's visual amenity.

13.2.2.1 Establishment of Baseline

The process set out in the GLVIA (2013) and in the EPA (2022) involves the preparation of the baseline or receiving environment characteristics. This includes two stages, which are a desk-based study and site visit/field study. These allow the assessor to establish the existing receiving environment and key landscape and visual characteristics and their sensitivities.

The desk-based study includes:

- Review of preliminary proposals and identification of preliminary study area
- Review of current Development Plan within the study area, and any other plans as appropriate, to identify relevant national and local designations and policies.

- This may include designations such as scenic routes, protected views and other landscape designations including any Landscape Character Assessments and also elements of cultural heritage or archaeological interest. International designations such as UNESCO designations would also be relevant here, if present.
- Other information that may be consulted includes aerial imagery, OSI Discovery series mapping, historic (6-inch and 25 inch) mapping. The myplan.ie website provides much of the information as well as information on Recorded Monuments, National Inventory of Architectural Heritage (NIAH) and gardens listed in the Survey of Historic Gardens and Designed Landscapes. The CORINE Landcover Maps (2018) were also consulted.

A site visit was then carried out to review and confirm the findings of the desk based study, and provide a more detailed description of the landscape and visual character of the study area. Based on both the desk study and site visit, the assessor identifies landscape and visual receptors and their relative sensitivity. A site visit was carried out in August 2023

13.2.2.2 Assessment of Effects:

Once the Baseline is established, and the Proposed Development drawings and descriptions reviewed, the assessment process is commenced, as per the GLVIA (2013) and as outlined in Sections 13.4.1 and 13.4.2 below.

Use of 'Impact and 'Effect

Section 1.16 of the GLVIA (referring to the EIA Directive), advises that the terms 'impact' and 'effect' should be clearly distinguished and consistently used in the preparation of an LVIA.

'Impact' is defined as the action being taken. In the case of the Proposed Development, the impact would include the construction of the proposed wind turbines and other elements.

'Effect' is defined as the change or changes resulting from those actions, e.g. a change in landscape character, land cover, or changes to the composition, character and quality of views in the receiving environment. This report focusses on these effects.

Landscape and Visual Impact Assessment (LVIA) is a tool used to identify and assess the significance of and the effects of change resulting from development on both the landscape as an environmental resource in its own right and on people's views and visual amenity.

13.2.2.3 Methodology for Landscape Assessment

In Section 13.4.1 and 13.4.2, of this report, the landscape effects of the Proposed Development are assessed. The nature and scale of changes to the landscape elements and characteristics are identified, and the consequential effect on landscape character and value are discussed. Trends of change in the landscape are taken into account. The assessment of the significance of the effects takes account of the sensitivity of the landscape resource and the magnitude of change to the landscape, which are likely to result resulted from the Proposed Development.

Definitions and descriptions of sensitivity, magnitude of change and quality and longevity of effects are derived from the GLVIA (2013). The GLVIA (2013) does not set out specific definitions of descriptions used, but contains key widely used principles and case studies / examples that are intended to inform a professional's methodology, supported by their experience and judgements in relation to landscape and landscape change. These descriptions expand and complement the EPA guidelines as intended, in relation to topic- specific guidance.

Sensitivity of the Landscape Resource

Sensitivity is a combination of Landscape Value and Landscape Susceptibility. It includes consideration of landscape values as well as the susceptibility of the landscape to change. Landscape sensitivity is a function of its

land use, landscape patterns and scale, visual enclosure and distribution of visual receptors, scope for mitigation, and the value placed on the landscape. It also relates to the nature and scale of development proposed.

Landscape values can be identified by the presence of landscape designations or policies, which indicate particular values, either on a national or local level. In addition, a number of criteria are used to assess the value of a landscape. These are described further in below.

Landscape susceptibility is defined in the GLVIA as, “the ability of the landscape receptor to accommodate the Proposed Development without undue consequences for the maintenance of the baseline scenario and/or the achievement of landscape planning policies and strategies.” Susceptibility also relates to the type of development – a landscape may be highly susceptible to certain types of development but have a low susceptibility to other types of development.

The categories of Landscape Sensitivity range from Low to Very High as outlined in **Table 13-1**.

Table 13-1 Categories of Landscape Sensitivity

Sensitivity	Description
Very High	Areas where the landscape exhibits a very strong, positive character with valued elements, features and characteristics that combine to give an experience of unity, richness and harmony. The character of the landscape is such that its capacity for accommodating change in the form of development is very low. These attributes are recognised in landscape policy or designations as being of national or international value and the principal management objective for the area is protection of the existing character from change.
High	Areas where the landscape exhibits strong, positive character with valued elements, features and characteristics. The character of the landscape is such that it has limited/low capacity for accommodating change in the form of development. These attributes are recognised in landscape policy or designations as being of national, regional or county value and the principal management objective for the area is conservation of the existing character.
Medium	Areas where the landscape has certain valued elements, features or characteristics but where the character is mixed or not particularly strong. The character of the landscape is such that there is some capacity for change in the form of development. These areas may be recognised in landscape policy at local or county level and the principal management objective may be to consolidate landscape character or facilitate appropriate, necessary change
Low	Areas where the landscape has few valued elements, features or characteristics and the character is weak. The character of the landscape is such that it has capacity for change; where development would make no significant change or would make a positive change. Such landscapes are generally unrecognised in policy and where the principal management objective is to facilitate change through development, repair, restoration or enhancement.
Negligible	Areas where the landscape exhibits negative character, with no valued elements, features or characteristics. The character of the landscape is such that its capacity for accommodating change is high; where development would make no significant change or would make a positive change. Such landscapes include derelict industrial lands or extraction sites, as well as sites or areas that are designated for a particular type of development. The principal management objective for the area is to facilitate change in the landscape through development, repair or restoration.

Magnitude of Landscape Change

The magnitude of change is a factor of the scale, extent and degree of change imposed on the landscape with reference to its key elements, features and characteristics (also known as ‘landscape receptors’). Five categories are used to classify magnitude of landscape change.

For the purpose of assessment, five categories are used to classify the landscape sensitivity of the receiving environment, from Very High sensitivity to Negligible. These categories are defined in **Table 13-2**.

Table 13-2 Magnitude of Landscape Change

Magnitude of Change	Description
Very High	Change that is large in extent, resulting in the loss of or major alteration to key elements, features or characteristics of the landscape and/or introduction of large elements considered totally uncharacteristic in the context. Such development results in fundamental change in the character of the landscape.
High	Change that is moderate to large in extent, resulting in alteration or compromise to key elements, features or characteristics, and/or introduction of large elements considered uncharacteristic in the context. Such development results in a moderate to large of change to the character of the landscape
Medium	Change that is moderate in extent, resulting in partial loss or alteration to key elements, features or characteristics of the landscape, and/or introduction of elements that may be prominent but not necessarily uncharacteristic in the context. Such development results in moderate change to the character of the landscape
Low	Change that is moderate or limited in scale, resulting in minor alteration to key elements features or characteristics of the landscape, and/or introduction of elements that are not uncharacteristic in the context. Such development results in minor change to the character of the landscape.
Negligible	Change that is very limited in extent, resulting in no alteration to key elements, features, or characteristics of the landscape, and/or introduction of elements that are characteristic in the context. Such development results in minimal change to the character of the landscape

13.2.2.4 Methodology for Landscape Assessment

In **Section 13.4.2** and **13.4.3** of this report, the visual effects of the Proposed Development are assessed. Visual assessment considers the sensitivity of the viewers, (i.e. groups of people) and the magnitude of the changes to the composition and character of views. The assessment is made for a number of viewpoints selected to represent the range of visual receptors in the receiving environment. The significance of the visual effects experienced at these locations is assessed by measuring the visual receptor sensitivity against the magnitude of change to the view resulting from the Proposed Development.

Sensitivity of the Visual Receptor

Visual receptor sensitivity is a function of two main considerations:

Susceptibility of the visual receptor to change: This depends on the occupation or activity of the people experiencing the view, and the extent to which their attention or interest is focussed on the views or visual amenity they experience at that location. Visual receptors most susceptible to change include residents at home, people engaged in outdoor recreation focused on the landscape (e.g. trail users), and visitors to heritage or other attractions and places of community congregation where the setting contributes to the experience.

Visual receptors less susceptible to change include travellers on road, rail and other transport routes (unless on recognised scenic routes which would be more susceptible), people engaged in outdoor recreation or sports where the surrounding landscape does not influence the experience, and people in their place of work or shopping where the setting does not influence their experience.

Value attached to the view. This depends to a large extent on the subjective opinion of the visual receptor but also on factors such as policy and designations (e.g. scenic routes, protected views), or the view or setting being associated with a heritage asset, visitor attraction or having some other cultural status (e.g. by appearing in arts).

For the purpose of assessment, five categories are used to classify visual receptor ‘s sensitivity. These categories range from Very High to Negligible and are described in **Table 13-3**.

Table 13-3 Categories of Visual Receptor Sensitivity

Sensitivity	Description
Very High	Viewers at iconic viewpoints - towards or from a landscape feature or area - that are recognised in policy or otherwise designated as being of high value or national value. This may also include residential viewers who are focussed to a large extent on the view.
High	Viewers at viewpoints that are recognised in policy or otherwise designated as being of value, or viewpoints that are highly valued by people that experience them regularly (such as views from houses or outdoor recreation features) and views which are highly valued by the local community. This may also include tourist attractions, and heritage features of regional or county value, and viewers travelling on scenic routes.
Medium	Viewers considered of medium susceptibility, such as locations where viewers are travelling at slow or moderate speeds through or past the affected landscape in cars or on public transport, where they are partly but not entirely focused on the landscape, or where the landscape has some valued views. The views are generally not designated, but which include panoramic views or views judged to be of some scenic quality, which demonstrate some sense of naturalness, tranquillity or some rare element in the view.
Low	Viewers at viewpoints reflecting people involved in activities not focused on the landscape e.g. people at their place of work or engaged in similar activities such as shopping, etc. The view may present an attractive backdrop to these activities but there is no evidence that the view is valued, and not regarded as an important element of these activities. Viewers travelling at high speeds (e.g. motorways) may also be generally considered of low susceptibility.
Negligible	Viewpoints reflecting people involved in activities not focused on the landscape e.g. people at their place of work or engaged in similar activities such as shopping where the view has no relevance or is of poor quality and not valued.

Magnitude of Change to the view

Classification of the magnitude of change takes into account the size or scale of the intrusion of the Proposed Development into the view, (relative to the other elements and features in the composition) i.e. its relative visual dominance), the degree to which it contrasts or integrates with the other elements and the general character of the view, and the way in which the change will be experienced (e.g. in full view, partial or peripheral, or glimpses). It also takes into account the geographical extent of the change, the duration and the reversibility of the visual effects.

Five categories are used to classify magnitude of change to a view. These range from Very High to Negligible and are defined in **Table 13-4**:

Table 13-4 Magnitude of Visual Change

Magnitude of Change	Description
Very High	Full or extensive intrusion of the development in the view, or partial intrusion that obstructs highly valued features or characteristics, or the introduction of elements that are completely out of character in the context, to the extent that the development becomes dominant in the composition and defines the character of the view and the visual amenity.
High	Extensive intrusion of the development in the view, or partial intrusion that obstructs valued features, or introduction of elements that may be considered uncharacteristic in the context, to the extent that the development becomes co-dominant with other elements in the composition and affects the character of the view and the visual amenity.
Medium	Partial intrusion of the development in the view, or introduction of elements that may be prominent but not necessarily uncharacteristic in the context, resulting in change to the composition but not necessarily the character of the view or the visual amenity
Low	Minor intrusion of the development into the view, or introduction of elements that are not uncharacteristic in the context, resulting in minor alteration to the composition and character of the view but no change to visual amenity.

Magnitude of Change	Description
Negligible	Barely discernible intrusion of the development into the view, or introduction of elements that are characteristic in the context, resulting in slight change to the composition of the view and no change in visual amenity.

In this case, photographs from selected viewpoints, which represent various areas along the proposed grid connection route, assist in the visual assessment. Initial viewpoints are selected during the desk study with the exact location confirmed in the field during the site visit.

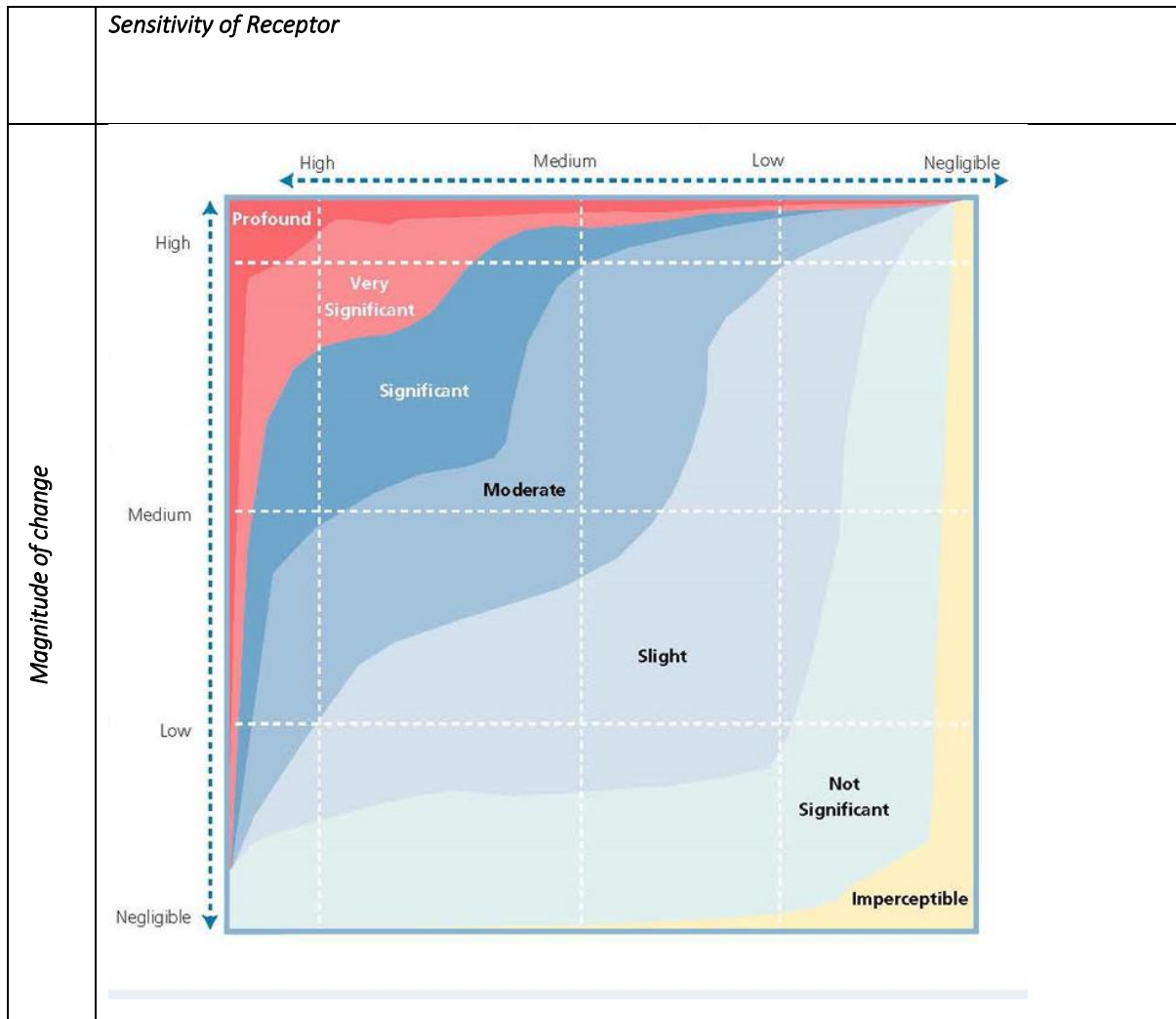
Significance of Effect

In order to classify the significance of landscape and visual effects, the predicted magnitude of change is measured against the sensitivity of the landscape receptor/visual receptor. The classifications used by the EPA (2022) provide a useful scale to describe the significance of the effects.

There are seven classifications of significance, namely: (1) imperceptible, (2) not significant, (3) slight, (4) moderate, (5) significant, (6) very significant, (7) profound, and the **Table 13-5** below shows that the significance of the effect is a direct result of the magnitude of the change and the sensitivity of the receptor.

The relationship between the magnitude of change and sensitivity of the receptor with the varying classifications of Significance is illustrated on the below extract from the EPA (2022) Guidelines (with labels on the relevant axes amended and simplified based on GLVIA(2013(guidance):

Table 13-5 Significance of Effect (adapted from EPA, 2022)



Note: This graph is a guideline only, and an element of professional judgement is also applied. The assessor also uses professional judgement informed by their expertise, experience and common sense, to arrive at a classification of significance that is reasonable and justifiable.

The GLVIA 3rd Edition recognises (at para 2.23) that :

“professional judgement is a very important part of LVIA. While there is scope for quantitative measurement of some relatively objective matters, much of the assessment must rely on qualitative judgements.”

The EPA guidance (2022) refers to the use of topic specific guidance and specifically references the GLVIA 2013 in relation to professional judgement. It recognises (at para 3.72) that:

“Some uncertainty is unavoidable in EIA, especially about matters that involve an element of judgement, such as assigning a level of significance to an effect. Such judgements should be explicit and substantiated rather than presented as objective fact. This is best done using agreed referable approaches, e.g. the Guidelines on Landscape and Visual Impacts Assessment provide guidance on what constitutes a severe visual effect”.

13.2.3 Study Area

According to Section 5.2 of the GLVIA (2013):

“The study area should include the site itself and the full extent of the wider landscape around it, which the Proposed Development may influence in a significant manner.”

The Proposed Development consists of an underground cable which will be mainly laid along roads and tracks either within the road/track corridor or in the verge. Relatively short sections will go through an area of grassland (approximately 1.50 km) and shorter sections through areas of coniferous forestry within the permitted windfarm site. Therefore, as the proposed underground cable has the potential for effects in the immediate vicinity, the study area is proportionate to this, and includes an area of approximately 100 metres to either side of the proposed cable. This study area is appropriate as it is proportionate to the nature of the Proposed Development, which is an underground cable laid in a trench, and also proportionate to its likely effects which are very localised and limited. The selection of 100 metres on either side includes the immediate vicinity of the site (the cable trench) and potential landscape but more particularly visual receptors.

13.3 Baseline Environment

13.3.1 Policy Context - Clare County Development Plan 2023-2029 (Interim Version)

13.3.1.1 Landscape Character Assessment

Section 14.1.2 of the Clare County Development Plan (Interim Version, hereafter referred to as the Plan) notes the importance of the Clare Landscape Character Assessment carried out by ERM in 2002. This has formed the basis for the current Plan’s approach to the categorisation of the County into ‘Living Landscapes’.

The Plan describes the guidance provided by the landscape character assessment – this includes information on the key characteristics of different areas, the land cover, ecology and also the current condition of the landscape and how sensitive it is to change and notes that the assessment should be used by agents/applicants when preparing development proposals.

County Clare is divided into 21 distinct Landscape Character Areas LCAs which are illustrated in **Figure 13-1** below. The Proposed Development is primarily located in LCA 8 Slieve Bernagh Uplands, (shaded green) but the southern section in the vicinity of Ardnacrusha is located in LCA 9 River Shannon Farmlands (shaded dark blue) , in the south-east of the County.

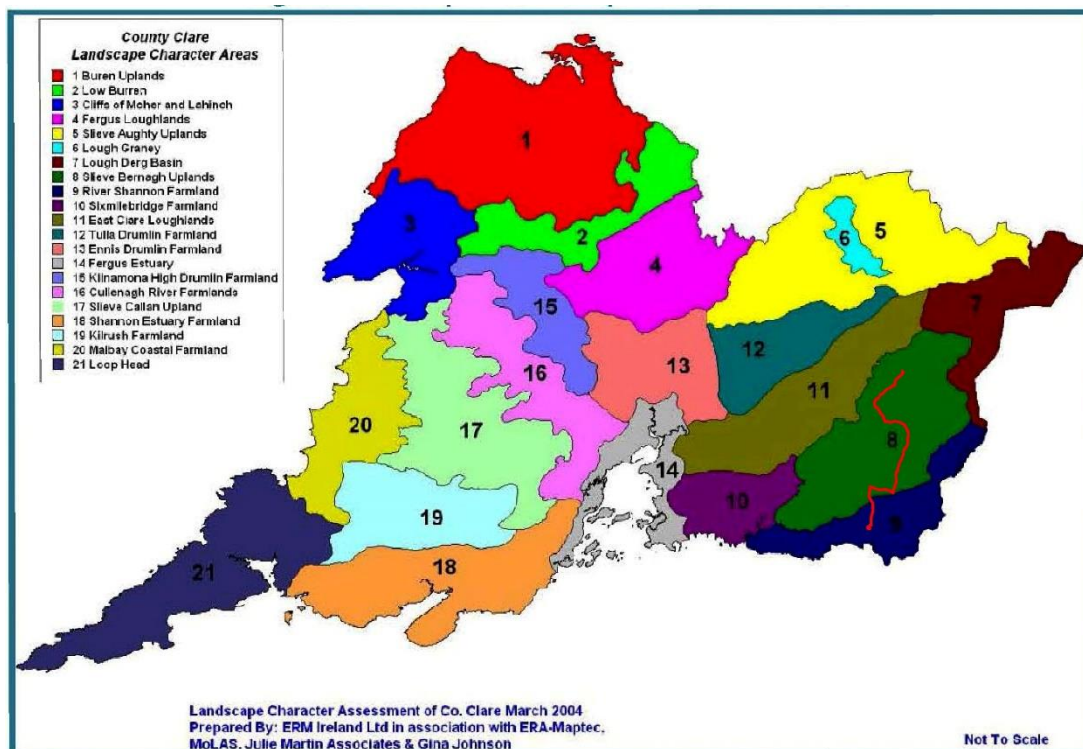


Figure 13-1 Landscape Character Areas in Co. Clare (with Proposed Development) Source: Clare County Council

A policy objective notes:

CDP 14.1: It is an objective of Clare County Council:

a) To encourage the utilisation of the Landscape Character Assessment of County Clare, the forthcoming Regional Landscape Strategy and other relevant landscape policy and guidelines and to have regard to them in the facilitation, protection and management of appropriate landscape change in County Clare.

The LCA 8 Slieve Bernagh Uplands are characterised by the prominence of Slieve Bernagh hills to the south (and west) of Lough Derg and key characteristics which include the gentle rolling nature of the hills, with scattered settlement which is confined to the lower fringes of the hills. The remote and isolated character of the area is a characteristic, with panoramic views to Lough Derg, the lower drumlin farmland and the Shannon Estuary is mentioned, though it should be noted that these views are available only from some parts of the LCA. The LCA 9 Shannon Estuary Farmland is characterised as:

“a largely rural, agricultural landscape with fields usually enclosed by hedgerows, hedgebanks and trees. This helps create an intimate, well wooded landscape. The meandering Shannon also provides an important landscape feature throughout this area. However, the influence of Limerick is increasingly apparent, particularly in the southern part of this area”.

LCA 9 occupies a smaller proportion of the study area, , This he southern part of the study area near Ardnacrusha, has a more suburban character but the remainder of the LCA 9 is relatively rural, and including parts with a more intimate, character with well enclosed roadsides (mature trees and hedgerows are evident). The more remote and isolated rural character of the study area within LCA 8 is notable, especially in the vicinity of Kilbane village and the surrounds, east and north of the R466.

13.3.1.2 Living Landscapes

Co Clare’s landscapes are categorised into areas which have similar characteristics for which similar planning policies are applicable. Section 14.3 of the the Plan notes that the approach builds on the Landscape Character Assessment of County Clare. The ‘Living Landscapes’ approach sets out three main categories, recognising that the different parts of the County have different potential. The Plan notes that these ‘Living Landscapes’ share similar characteristics and clear policies relate to each area. The aim is that designations and policies will assist in sustaining the identity of each of these different areas and will also help people to continue to use the countryside.

The three categories are listed below:

The three categories in the Figure above are as follows:

- Settled Landscape – areas where people live and work
- Working Landscapes – intensively settled and developed areas within Settles Landscapes or areas with a unique natural resource
- Heritage Landscapes – areas where natural and cultural heritage are given priority and where development is not precluded but happened more slowly and carefully

The Proposed Development is located in both a Settled landscape and Working landscape type, but does not traverse any part of a Heritage Landscape, as shown below in an extract from Map 14A from the Development Plan, with the grid route outlined in magenta in **Figure 13-2** below:

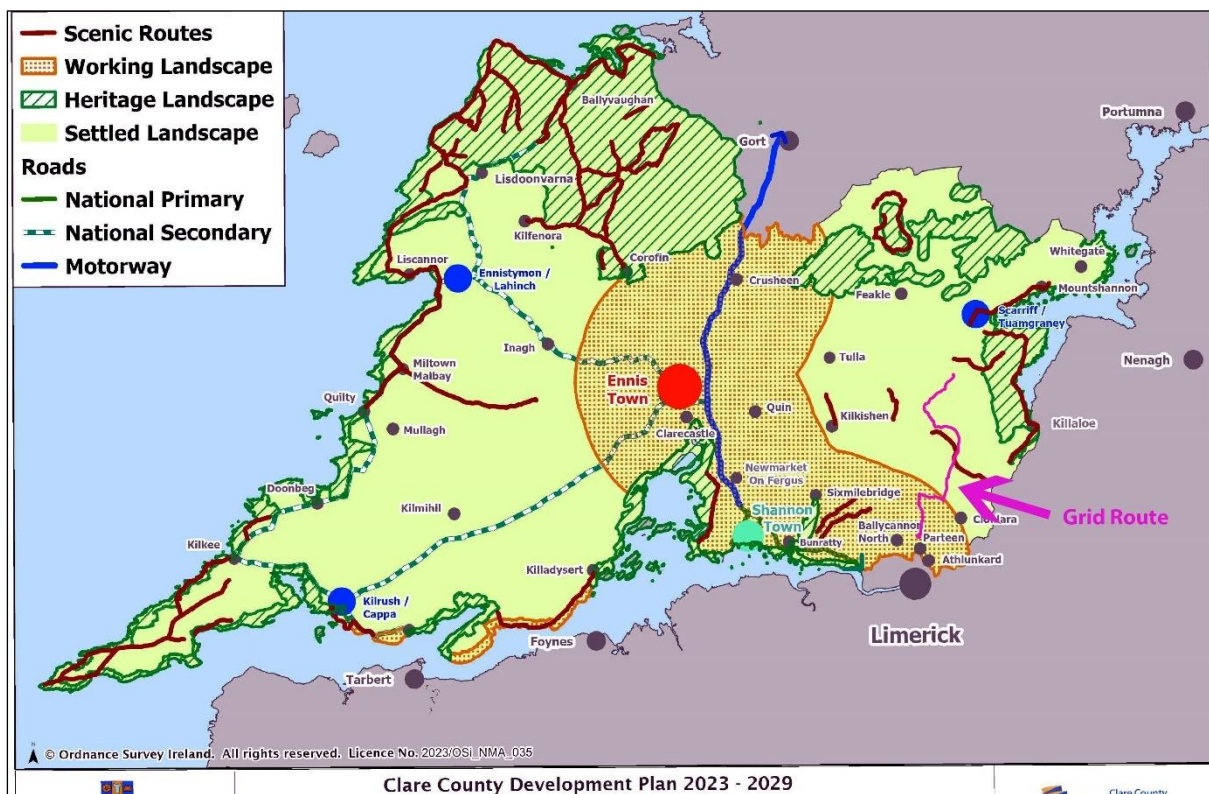


Figure 13-2 Map 14A showing the Living Landscapes (with grid route in magenta)

The Working landscape type relevant to the study area, extends from Ardnacrusha north to Carmody’s Cross. The Plan notes that this part of the County contains the highest concentrations of population and employment and the strongest transport links and connectivity. It includes a large part of the Limerick Shannon Metropolitan Area

and the County Town/Key Town of Ennis. It is the economic driver of County Clare and an important area of the Mid-West and Southern Region.

North-east of Carmody’s Cross, the Proposed Development will be located in a Settled landscape. The Plan notes that Settled landscapes accommodate roads, powerlines, quarries and piped services that service settlements and industry. Uses which are envisaged include energy, along with agriculture, forestry, extraction, transportation, industry, commerce, tourism, recreation and leisure, education, healthcare and social infrastructure.

13.3.1.3 Scenic Routes

Section 14.5 of the Plan relates to views and prospects. The Plan notes that while there is a need to protect and conserve views adjoining public roads throughout the County where these views are of high amenity value, it is not proposed that this should give rise to the prohibition of development along these routes but development, where permitted, should not seriously hinder or obstruct these views and should be designed and located to minimise their visual impact. The proposed grid connection route will traverse a short section (approximately 950m) of the Scenic Route No 26 -R466 between Broadford and O’ Briensbridge in the townland of Ballyquin More. This, along with other designations (Heritage Landscapes) is illustrated in **Figure 13-3** though it is noted these Heritage landscape designations are well outside the study area.

Scenic Route No.	Description
26	R466 between Broadford and O’Briensbridge

The relevant Development Plan objective is as follows:

CDP 14-7: It is an objective of Clare County Council:

- a) To protect sensitive areas from inappropriate development while providing for development and change that will benefit the rural community;*
- b) To ensure that Proposed Developments take into consideration their effects on views from the public road towards scenic features or areas and are designed and located to minimise their impact; and*
- c) To ensure that appropriate standards of location, siting, design, finishing and landscaping are achieved.*

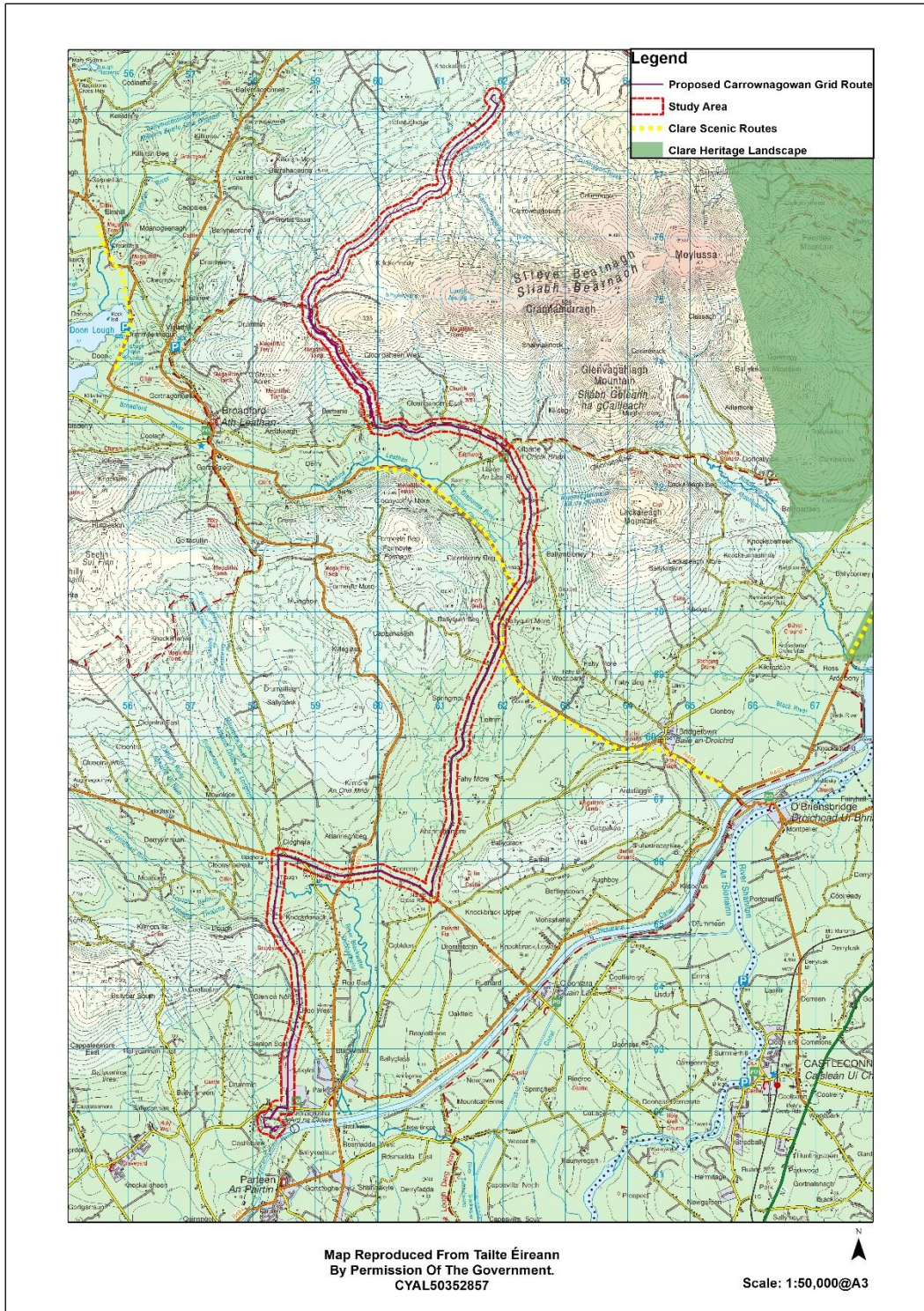


Figure 13-3 Landscape Designations in relation to the proposed Grid Connection

13.3.1.4 Built Heritage - Record of Protected Structures

Chapter 10 of the Development Plan relates to Built heritage and to Archaeology, both of which are relevant to Landscape and Visual Assessment, as these elements add value and character to the landscape.

The Record of Protected Structures (Volume 4 of the Plan) contains a number of features which are within the study area, including:

RPS No.	Description
427	Glenomra House, Ballyquin More
102	Church of the Mother of God, Cloghera
188	Kilbane Bridge, Kilbane

The Built Heritage Features listed above are also listed in **Chapter 10** Cultural Heritage in **Table 10-4** and identified as features BH1, BH2, and BH3 respectively. These features are mapped in **Chapter 10** in **Figures 10-1a-10-1d**. It should be noted that Glenomra house is, like the Designed Landscape at Ballyquin More below, just outside the study area as the but the former entrance is within the study area, it is included here for completeness.

13.3.2 National Inventory of Architectural Heritage (NIAH)

The NIAH website states that the purpose of the NIAH 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)’.

Garden Survey

The NIAH website also notes that the ‘Survey of Historic Gardens and Designed Landscapes includes over 6,000 records of historic gardens and designed landscapes. These are principally demesnes but also included are garden cemeteries and urban parks’. This Survey is currently a desk-based survey.

As well as the house listing on the RPS, the gardens and grounds surrounding the house at Ballyquin More are listed on the NIAH Survey of Historic Gardens and Designed Landscapes <https://www.buildingsofireland.ie/buildings-search/site/3665/ballyquin-house-killokenne-co-clare>

This states that :

A large quarry has been constructed on this site

This can be seen on the NIAH viewer, where comparison between the First Edition OS 6-inch map and the current aerial view, there is a substantial change in the overall designed landscape (outside the study area) with a quarry now occupying much of the former grounds, though the house and immediate gardens are not part of the quarry. The only other feature noted is listed under ‘*Kitchen, walled and productive garden*’, suggesting that this may remain. The RPS (above) lists only the house. However, it should be noted that as referenced in the Baseline Environment – Section **13.3.4**, the site visit confirmed that though the roadside boundary and location of the former gate lodge and a current entrance only are included in the study area, and the entrance is visible, it is not a remarkable landscape feature.

This site (noted as a Designed Landscape is referred to in detail in **Chapter 10**, refer to **Table 10-3** and mapped in **Chapter 10** on **Figure 10-1b**).

13.3.3 DoEHLG Guidelines 2006

There are few specifics in relation to design considerations for the proposed cable route, as the Guidelines state:

The cost of underground connection from the compound to the national grid is generally prohibitive. This connection can thus be above ground in all but the most sensitive landscapes.

Therefore, the above acknowledges that underground cabling is preferable from a landscape and visual perspective.

13.3.4 Baseline Environment – Landscape and Visual Character and Context

The Proposed Development is described below in terms of landscape and visual character under several headings. References are made to the Sections 1-4 as described in **Table 2-1**, Chapter 2 Description of the Proposed Development. Briefly these sections are:

- Section 1: UGC from Ardnacrusha 110kV substation to R-471 Road (Chainage 0 m to 5000 m)
- Section 2: UGC within R-471 and L-3046 Carriageway (Chainage 5000 m to 11850 m)
- Section 3: UGC within R466 & L-3022-8 roadways, through Kilbane Village (Chainage 11850 m to 17500m)
- Section 4: UGC within Consenting 3rd party folios to Windfarm (Chainage 17500 m to 25000 m)

13.3.4.1 Topography and Drainage

The landscape of the study area varies from relatively flat and low-lying in the southern part of the study area in the vicinity of Ardnacrusha power station (between 10 and 20m OD) approximately, with the topography rising gently in the vicinity of Roo West, and dropping again slightly at Trough, where the proposed cable route runs along the R471 which is in Section 1 of the proposed grid connection. The topography falls in elevations towards Carmody's Cross and along the R471, to an elevation of just above 80mOD but gradually rises again when it turns north along the Local Road L-3046 until the junction at Ballyquin More with the R466 (Section 2) .

The section of the study area along the R466 and immediate vicinity (Section 3) falls in elevation, and gradually rises again on the Local Road L-3022 -8 towards Kilbane, again where the road is close to the 80m contour. The lands to the north-east of the road rises towards the peaks of the Slieve Bernagh mountains. The topography of the road corridor is undulating, with the higher ground to the northeast of the route. The study area then turns to the north where the proposed grid connection will follow through fields east of the L-3022-8. . Section 4 of study area includes the lands immediately adjacent to and along this narrow local road) L-3022-8) which continues north and travels between two peaks, reaching an elevation of approximately 240-250 metres. The remainder of the study area (Section 4) continues to traverse the western and north-western slopes of the Slieve Bernagh hills, dropping below the 200 metre contour in the townland of Killokennedy, close to the northern end of the study area, near the permitted Carrownagowan substation.

There are a number of streams/watercourses, the most notable in the study area which are located along roads and tracks, being the bridge at Kilbane, where the bridge and stream are evident, as well as other minor crossings at Trough, and the bridge at Tooreen, between Carmody's Cross and Harol's Cross. Several streams are located in the study area west of Kilbane, descending from the Slieve Bernagh hills, but these are well hidden by vegetation.

13.3.4.2 Landcover

Landcover along the Proposed route varies, but consists predominantly of local and Regional road corridors, which includes the road itself which is a hard surfaced area, with grass or vegetated verges in some sections, as well as sections of wall, tree lines, and hedgerow vegetation. Apart from the road corridor, land cover includes areas of

agricultural land and forestry land and tracks, including degraded blanket bog and conifer plantation to the north of the study area.

Section 1 landcover includes some areas of open space within the Ardnacrusha substation complex but the proposed grid connection will follow mainly tracks within this area. The landcover along the local road L-3054 Lackyle Heights road mainly consists of dwellings and gardens along the southern part of the road, which becomes more rural at Roo Demesne, with large scale agricultural fields and some mature trees at Roo East (described in more detail below under Cultural Heritage).



Plate 13-1 Residences along Lackyle Heights Road;



Plate 13-2 More rural character, trees and walls at Roo East

From there on, in Sections 2 and 3 of the study area, the landcover primarily consists of agricultural fields bounding the road corridors, with a short section of the study area in Section 2 traversing a densely wooded section of landscape, indicated as ‘Glenomra Wood’ on the 6-inch and 25-inch maps as seen below:



Plate 13-3 Narrow road corridor with low hedgerow and narrow verge



Plate 13-4 Road travels through Glenomra Wood (both Section 2)

Section 3 includes a short section of the R466 which is also a scenic route, village of Kilbane, and the narrow local roads to the east and west of the village.



Plate 13-5 Scenic Route along R466



Plate 13-6 shows narrow local road/East Clare Way west of Kilbane

Section 4 includes typically smaller fields, some with higher proportions of semi-natural vegetation or scrub, just east of the L-3022-8 at Cloongaheen West. A number of trees are located within the study area adjacent to a ruin, where the proposed cable route changes direction. Here the trees include Cherry Laurel (*Prunus laurocerasus*), Ash (*Fraxinus excelsior*), Hawthorn (*Crataegus monogyna*) and Sitka Spruce (*Picea sitchensis*). The proposed cable route runs partly along but mainly in grassland, adjacent to the L-3022-8. The study area includes areas of coniferous plantation and forestry track to the north of the study area, both recently felled areas and more mature trees, and a section of degraded bog.

13.3.4.3 Settlement and Transport

The southern part of the study area is a more populated area, an area designated 'Working Landscape' close to Parteen and Limerick City, and there is evidence of this in the suburban development at Lackyle Heights road while north of this along the local road to the R471 settlements is more sparse. Settlement in the form of detached houses and farmsteads is found along the Regional and Local roads in Sections 2 and 3 of the proposed route, while the village of Kilbane is the main settlement in the northern part of the study area, in an otherwise remote area with some but fewer scattered houses and farms. There is very little settlement in the northern part of the study area north of the Kilbane -Broadford road, where the grid connection runs along the local road and track to the consented Carrownagowan substation.

The road pattern influences settlement pattern, as well as topography, and the proposed grid connection follows mainly local roads and some sections of farm or forestry track, and some relatively short sections of Regional Road (R471, R466). Settlement tends to be more sparse in the sections of track, such as Roo North and near Trough (south of the R466) and also north of the Kilbane-Broadford road.

13.3.4.4 Land Use

As noted above, land use in the study area is mainly roads and tracks (transportation) surrounded by residential development, with agricultural lands in the wider landscape for the majority of the study area, and areas of coniferous plantation to the north of the study area, in the Slieve Bernagh hills.

13.3.4.5 Built Form and Cultural Heritage

While the effects on elements architectural and archaeological heritage are assessed fully in Chapter 10 Cultural Heritage, certain elements are included here as they contribute to the character of the landscape. In the southern part of the study area (Section 1 in the Description of the Proposed Development), there are several notable buildings or structures which are part of the areas' cultural heritage within and close to the study area. There are the remnants of a designed landscape in the townland of Roo West, along the L-7066-1. The features consist of roadside stone walls, and stone entrance pillars and a gate lodge which appear to be associated with Roo Cottage (as it is marked on the 6-inch map, and Trough Castle as marked on the 25-inch map - but are not listed on the NIAH or Record of Protected Structures (RPS). However, these structures add character to the area and contribute a sense of history, with is complemented by the mature trees. A recent dwelling directly adjacent to Trough castle alters the setting somewhat.



Plate 13-7 Stone boundary walls and Entrance lodge to Roo Cottage/Tough Castle



Plate 13-8 Roo Cottage/Trough castle with recent adjacent residence

Approximately 150m further north, a graveyard (with ruined church referred to on the Historic Environment Viewer) lies directly adjacent to the road with a prominent enclosing wall. This, along with the Roo Cottage /Trough Castle area creates a very distinctive localised character in this part of the study area, quite distinct from the character of the road to the north and to the south. (These features listed referred to as AH13, AH14 and AH 15 in **Chapter 10** Cultural Heritage and also listed on the Records of Monuments and Places (RMP)).



Plate 13-9 Graveyard wall provides pleasant boundary to local road



Plate 13-10 Graveyard and enclosing wall in the study area at Trough

Other notable elements of built form include the Church of the Mother of God which lies within the study area on the southern side of the R471 at Trough (within Section 2), and which is listed on the RPS.

Within Section 3, between the R471 and the R466, the former designed landscape around the Ballyquin House (renamed Glenomera House on later OS map editions) at Ballyquin More lies adjacent to the road, and therefore partly within the study area. Comparison of the historic 6-inch and 25-inch maps show an extensive designed landscape, to the east of the road, but much of this is today occupied by a quarry as noted in the NIAH Garden survey. When travelling along the road in the study area, an entrance gate is evident, but not remarkable, along with a stone wall, and a line of mature trees further south, which define the field close to the road, and appear in line with that of the historic maps, but no other evidence is visible from the study area corridor.

Plate 13-11 shows the entrance near Ballyquin More which appears relatively modern.



Plate 13-11 Ballyquin More with entrance

The RPS and NIAH includes a dwelling called Glenomera House accessed from the western side of the R466, however is outside the study area and not evident from the road, with none of the mapped field boundaries depicted on the OS maps, remaining, and no distinctive landscape features evident.

Further north, Section 3 includes the village of Kilbane where the Kilbane Bridge is a key feature, as seen in **Plate 13-12**.



Plate 13-12 Kilbane Bridge

The bridge at Kilbane is an important feature (and listed on the RPS) and is distinctive as it is surrounded by what appear to be more recent buildings. Upstream, the riverbank appears heavily vegetated, while downstream, mature trees border the stream, with a grass field also adjacent to the bridge. The bridge arch is visible from the minor road (and East Clare Way) to the north of the bridge. A seating area provides a pleasant space adjacent to the bridge.

13.3.4.6 Tourism, Recreation and Amenity

There are some recreational features within the study area. While many of the quieter local roads are popular with walkers in their local area, a section of the East Clare Way runs through the study area. This begins in Kilbane Village (in Section 3) and continues west along the local road L-3022-8 until the junction at Cloongaheen West, where it continues north within the study area, as far as the junction with another local track. The East Clare way is a long distance waymarked trail, and brown walking signs are evident along the route. The sections of the study area which are part of the East Clare Way trail tend to be narrow, quiet roads, which are relatively remote and have a strong sense of tranquillity and naturalness. The East Clare Way route and its intersection with the proposed Grid Connection route is illustrated in **Figure 13-4** below.

A number of other trails lie outside the study area but are included to show their distance from the Proposed Development.



Figure 13-4 East Clare Way and other Recreational Trails

13.3.4.7 Landscape Value

Landscape values are derived from both indications of value as seen in national and local policy, as well as other indications that a landscape or landscape element, is valued. These values can further be categorised in two ways – values which should be conserved, and those that provide opportunity for enhancement.

Landscape value, as referred to above, can be identified by the presence of landscape designations or policies which indicate particular values, either on a national or local level. These include international designations (such as UNESCO World Heritage sites) national designations, and local designations such as scenic routes, scenic views or amenity designations which are included in County Development Plans. Important tourism, cultural heritage or recreational areas are also indicative of value. In addition, where landscapes do not have designations, a number of criteria are used to assess the value of a landscape. For undesignated landscape in the vicinity of the site, these criteria include:

- Landscape Quality/Condition
- Cultural Heritage/Conservation value
- Aesthetic/Scenic Quality
- Rarity or Representativeness
- Public Accessibility and Recreation Value

Applying the above criteria, Landscape Value in the study area – which is confined to the immediate vicinity of the road corridor-is in general considered Low, in areas of suburban character such as along Lackyle Road, and along the more busy and built up sections of Regional Road (R471). Areas of coniferous plantation, whether mature or recently felled, would also be considered Low. There are areas where the study area is a road corridor with pleasant but not specifically distinctive features, which may have some sense of tranquillity and the Landscape value is considered Medium. Examples include such as the track at Truagh south of the R471, and the local road from Harol's Cross to Ballyquin More, and the R466 which is a scenic route with views towards the Slieve Bernagh Hills but also a wide and relatively busy road corridor. The landscape value of the remnants of the designed landscape at Ballyquin More within the study area is considered of Medium value, because the elements apparent include stone walls and trees but these are not overly obvious.

In some locations, however, such as at Roo West, in the vicinity of the former Roo Cottage /Truagh Castle, the features such as the stone walls, mature trees and buildings entrance combine to create a more distinctive landscape character which includes several valued features considered of High value. Other areas with highly valued features include the village of Kilbane which has a scenic setting in the foothills of the Slieve Bernagh hills. The village has a pleasant amenity area adjacent to the historic Kilbane Bridge, the quiet and tranquil character of the road both east and west of Kilbane has some scenic qualities. The sections of the local roads which are part of the East Clare Way have a particularly quiet and tranquil character and have some scenic qualities.

13.3.4.8 Visual Amenity and Likely Visual Receptors

Visual Amenity varies throughout the study area, while there are areas in the south of the study area (Roo West) with scenic qualities, there are areas mainly to the north of the study area which are considered more scenic, where the Slieve Bernagh Hills provide a scenic backdrop and a focus of many views. The scenic route along the R466 provides evidence that these views are valued.

13.4 Assessment of Impacts and Effects

13.4.1 Construction Phase – Landscape Effects

13.4.1.1 Landscape Sensitivity

As noted in Section 13.2.1.2, Landscape Sensitivity is reached by combining judgments on Landscape Sensitivity and Landscape Value. Landscape Value is discussed in Section 13.3.4.7 above and notes that this varies throughout the study area from Low to High.

Valued features in the landscape were identified in Section 13.3.2, however landscape susceptibility relates to the type of development – a landscape may be highly susceptible to certain types of development but have a low susceptibility to other types of development. Therefore as the nature of the Proposed Development is also taken into account, the landscape is considered to have a Low susceptibility to this type of development. This is because it is an underground cable, in the most part proposed within the existing road corridor, and in some cases, departs from the road/track to traverse grassland or bogland in coniferous forestry.

The sensitivity of the majority of the landscape is considered **Low**. Several areas with potentially higher sensitivity (Medium) include areas where valued features are in close proximity to the proposed route, or where the landscape character or element are of higher value, notwithstanding the low susceptibility to change:

- Roo Cottage entrance walls and gates (Section 1) and mature trees (some rooted into walls)
- Trough Graveyard walls
- Mature trees in locations close to the road such as Roo West, Glenomra Wood Stream (where there may be a slight departure onto adjacent lands to cross Bridge 3), Mature trees are evident along the proposed cable route in grassland at Clongaheen West.
- Kilbane village and in particular the Kilbane bridge, Kilbane Stream, amenity area, and adjacent vegetation
- East Clare Way along local roads/track east, west and north of Kilbane village

13.4.1.2 Magnitude of Change

The laying of an underground cable, primarily in the road corridor (or track) will cause temporary landscape and visual changes at the construction stage, which is expected to continue for 6-8 months.

The construction phase will involve the laying of an underground cable in a trench – the majority of which is to be located within the road corridor- in most locations under the road itself, or under the verge, along with joint bays and 9 no main watercourse crossings. There are some locations in the north of the study area where the proposed cable route will traverse short sections of grassland and coniferous plantation.

In the vicinity of Roo West and Trough, along the local road L-7066-1 the cable will be within the carriageway and road shoulder, and therefore trees and adjacent walls and built heritage elements will be avoided and unaffected. The cable will be laid within the verge of the Scenic Route R466 and continues within the road itself, along the local road to Kilbane.

Minor vegetation clearance and trimming may occur at road edges, and potentially at Bridge 3 over the Glenomra Wood Stream should the cable traverse 3rd party lands. The cable will be laid by Directional Drilling to cross all but one watercourse, Bridge 4 over the Broadford River along the L- (L-3022-8) so there will be no effects on bridges or watercourses during the construction stage, including the Kilbane Bridge which is in one of the more sensitive areas identified, as well as Bridge 4. The crossing for Bridge 4 will be carried out by means of installing

the UGC ducting within the bridge deck. As noted in **Chapter 6 Biodiversity**, it is possible that the roots of some trees could be damaged by trenching. This could affect the health and growth rates of trees in hedgerow / treeline habitats. The majority of these changes will affect only the road or track corridor, a Negligible to Low magnitude of change.

Where the proposed cable route enters grassland, away from the road corridor, the proposed cable trench will avoid trees at (at Cloongaheen West) While some damage to tree roots is possible, this is likely to be limited and will be avoided where possible. Existing gates are used as access points to avoid hedgerow removal and will facilitate the cable trench and the service track in these locations. The cable route traverses a short section of degraded bogland which is within a coniferous plantation, and where the landscape has already been modified, but the majority of the route through coniferous plantation follows existing tracks to the consented Carrownagowan substation.

Machinery and construction noise will temporarily affect the landscape character, particularly in the tranquil areas which are primarily to the north of the study area and along the East Clare Way, but also in the local roads and tracks elsewhere in the study area. This will be similar to the disturbance experienced during roadworks and road maintenance. Overall, the magnitude of change during the construction phase will be *negligible to low*, and *temporary* in duration.

13.4.1.3 Significance of Effect

The significance of the landscape effect (as per the Matrix in Section 13.2.2) is a *temporary to short term, imperceptible to not significant, adverse* landscape effect. Short-term landscape effects result where vegetation clearance takes some time to re-establish as well as where off-road works are proposed.

It is noted in **Chapter 10 Cultural Heritage, Section 10.4.1**, that construction of the Proposed Development will not result in any direct negative impacts on previously recorded, or unrecorded, sites of archaeological significance. **Chapter 10** also notes that there will be no impacts to Kilbane Bridge during construction and that no remaining sites of built heritage or cultural heritage significance will be negatively impacted by the construction of the Proposed Development due to the distance of the Proposed Development from these assets.

13.4.2 Construction Phase –Visual Effects

13.4.2.1 Visual Receptor Sensitivity

Sensitivity includes consideration of both the susceptibility of the viewer and the value of the view. Visual Receptor Sensitivity to the construction of the proposed underground cable, which is to be laid in the road corridor (either within the existing road, track or along the road verge), or in the short section of grassland or coniferous forestry, is considered Negligible to Low in the majority of locations. Where the cable runs off-road, through grassland, degraded bogland or coniferous forestry, visual receptors will be fewer in number as there is limited or no public access in some of these areas. Motorists on the majority of roads are considered **Low** sensitivity. Sensitivity is considered to be higher where:

- Dwellings are adjacent to a scenic stretch of the road, (including the section of the Scenic Route)
- Locations where viewers may be more focussed on their surroundings and travelling on foot, and in areas where there are elements of built heritage or cultural heritage, such as in the Graveyard or the vicinity of Roo Cottage/Trough Castle at Trough.
- Kilbane Bridge and village
- Receptors along the section of the road and track which is part of the East Clare Way,

Numbers of viewers in the area north of Kilbane village, in the vicinity of the East Clare Way where some of these more sensitive receptors occur, are likely to be fewer in number.

13.4.2.2 Magnitude of Change

The active construction area will be along a 100-200m stretch of any roadway at any one time. The visual effects of the grid connection where it is in the road corridor or track are only evident during the construction stage. Once any areas which were disturbed are re-vegetated these areas will appear similar to what they were before.

The magnitude of visual change is considered *negligible* to *low*. The construction phase will involve the laying of an underground cable in a trench in the road corridor or track, which is an activity similar to road works or maintenance, and though machinery and excavations may be visible there will be little or no overall visual change to the overall road corridor, and the visual change will be very localised and temporary. Some vegetation trimming or clearance may be visible. Where the proposed cable route traverses off-road lands, in the north of the study area, some visual disturbance will be evident, including from receptors along the (L-3022-8), as grassland or bogland is removed and an access track is constructed. In the grassland area, it should be noted that existing gates will be used, and vegetation clearance is kept to a minimum with hedgerow and tree removal avoided, and in these locations, visual effects will be minimal. Retention of existing hedgerows on the greenfield land adjacent to the proposed cable trench will screen the majority of views from the East Clare Way. As vegetation re-establishes in these areas where the track runs through grassland or bogland, the visual effects will reduce in the short term.

13.4.2.3 Significance of Effect

The visual effect resulting from a negligible to low magnitude of change and a *negligible* to *low* visual receptor sensitivity (with several locations of Higher sensitivity) results in a *temporary* to *short Term, not significant* visual effect. Short-term, adverse visual effects are expected to arise where the proposed grid connection runs off road in the northern part of the study area and will reduce after this as vegetation re-establishes.

Chapter 10 Cultural Heritage notes in **Section 10.4.2** that there is no predicted impacts to the archaeological, architectural and cultural heritage resource as a result of the operation of the Proposed Development due to the type of development i.e. an underground cable.

13.4.3 Operational Phase – Landscape Effects

Operational phase landscape effects where the proposed cable is laid within the road corridor are not likely to arise, as the cable is underground and installed. Any maintenance operations are unlikely to result in landscape effects and would be similar to temporary road works. The sections of proposed cable route which are off-road and laid under a 3m wide access track, in the north of the study area will be evident following the construction phase but landscape effects are considered *not significant* and *neutral*.

13.4.4 Operational Phase – Visual Effects

Operational phase visual effects are not likely to arise, as the cable is underground and installed. Any maintenance operations are unlikely to result in visual effects and would be similar to temporary road works. Visual receptors along the roads and East Clare Way at Cloongaheen West would continue to notice the visual change as a result of the proposed access track, however over time the surroundings will gradually re-vegetate to minimise effects which are considered *not significant* visual effects.

13.4.5 Do-Nothing

It is likely the existing road and track network will be maintained and continue to function as a road in the future. It is expected that the main land uses in the study area – agriculture and residential – will continue. It is assumed that the lands to the north of the study area which are under coniferous forestry, will continue, with the cycle of felling and re-planting continuing.

13.4.6 Cumulative Impacts and Effects

The Proposed Development has the potential to interact with the proposed Fahy Beg Wind Farm Development Grid Connection in two locations and in one location within Ardnacrusha with the Drummin Solar Farm Grid Connection (**Figure 1-2 and 1-3, Chapter 1**). The potential for Cumulative effects with the consented wind farm is also assessed.

As outlined in **Chapter 1**, each project that progresses with a grid connection located within the public road network will have to apply to the local authority for a road opening licence, where timelines will be agreed, and connections sequenced. Early engagement with the local authority will allow them to decide on how the sections of public road are managed during the laying of the underground grid trenching, so as to avoid disruption. In the event that the Fahy Beg underground grid and the Proposed Development construction works need to be done at similar times within the public road network then the Local Authority through the Road Opening Licence process will agree the best solution. The solution may be to close a short section of road and do a traffic diversion, or it may dictate each developer stagger the duration of the overlap on the public road so as to control and manage impacts locally.

However, the extent of the overlay between the Proposed Development and the other grid connections are very limited – comprising a short sections of the overall route within ESB site at Ardnacrusha - c.250m of the Drummin grid connection and c. 810 m of the Fahy Beg grid connection. Outside of the ESB facility, the only interaction would be approximately c. 1800m along the Regional Road R471 and the local road L-3046 where the Fahy Beg grid connection is proposed.

Should the Proposed Development be under construction at the same time as the section of the other projects within the Ardnacrusha facility, these are likely to result in a Not Significant, temporary landscape effect – the Proposed Development and proposed Fahey Beg and Drummin Solar Farm grid connections are both located within existing tracks within the ESB facility (see Figure 1.3 in Chapter 1.) Visual receptors are those working in an existing ESB power station and therefore of Low sensitivity, and visual effects would be considered Not Significant and temporary.

Should the Proposed Development be under construction at the same time as the Fahy Beg grid connection along the R471 and L-3046, this is likely to give rise to Not Significant, temporary landscape effects during construction. Visual effects are also considered to be Not Significant and temporary.

Operational phase effects are not expected along either of these sections as they occur in either the road corridor or within tracks in the Ardnacrusha facility.

Should these other proposed projects be constructed outside the construction period of the Proposed Development, then no cumulative landscape and visual effects will arise.

Potential construction phase cumulative (landscape and visual effects) of the Proposed Development in conjunction with the consented windfarm development are not considered to arise. At construction stage, the construction related to the windfarm is of a scale where additional construction of the Proposed Development will not be perceptible. Operational phase (landscape and visual) effects of the Proposed Development in conjunction with the windfarm are not considered to arise.

Cumulative landscape and visual effects of the Proposed Development in addition to the existing forestry practices which involve tree felling and re-planting and some maintenance of access tracks, will not be perceptible.

13.5 Mitigation and Avoidance Measures

The majority of the Proposed Development is located underground within existing road and track corridors so this in itself minimises interventions on greenfield areas. Mitigation and avoidance measures are applicable to both Landscape and Visual effects.

13.5.1 Construction Phase

Although no significant effects have been identified during the construction phase, the following measures will be adhered to during the construction phase of the Proposed Development.

- Care will be taken to avoid any damage to vegetation and walls, especially those of built or cultural heritage value, where the proposed works are located to the edge of the carriageway, or within the verge adjacent to the road.
- In relation to trees and tree roots, there is potential for some damage to tree roots and roots of hedgerow vegetation during construction, and though the majority of the roads should not have tree roots within them. The advice of a qualified Arboriculturist be available to the construction team during the detailed design/construction phase.
- Areas which are disturbed will be allowed to re-vegetate naturally.
- As set out in **Chapter 6**, the area of degraded upland blanket bog that will be directly impacted (lost) at the northern extent of the Proposed Development site will be minimised by marking out the area where works will take place with stakes and fencing to prevent access beyond this area.

13.5.2 Operational Phase

No mitigation measures are required during the operational phase.

13.6 Residual Impacts and Effects

Residual effects are as those set out in **Section 13.4**.

13.7 Risk of Major Accidents and Disasters

Not relevant to this Chapter. Please refer to **Chapter 2**.

13.8 Summary

The Proposed Development is largely laid within the existing road corridor. A number of sections of limited length are not on the existing public road. These include short sections at Ardnacrusha, within the ESB facility, at the southern extent of the study area, and within agricultural lands at Cloongaheen West, and within areas of coniferous plantation, to the north of the study area. The main activities in the vicinity of the grid connection are electricity generation, agriculture, and coniferous forestry, with residential uses immediately adjacent to the road corridor.

Due to the nature of the Proposed Development, the fact that it is a cable located underground, the main landscape and visual effects will occur during the construction phase. These effects will be extremely localised. The nature of the Proposed Development is also that it is reversible and can be removed with minimal landscape and visual effects, similar to the construction phase. No significant landscape and visual effects are anticipated during the construction phase and operational phase.

13.9 References

Guidelines for Landscape and Visual Impact Assessment, 3rd Edition 2013, published by the UK Landscape Institute and the Institute of Environmental Management and Assessment (hereafter referred to as the GLVIA).

<https://www.buildingsofireland.ie/buildings-search/site/3665/ballyquin-house-killokenne-co-clare>

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www.myplan.ie

Clare County Development Plan 2023-2029, Interim Version.