# 11 LANDSCAPE AND VISUAL AMENITY

## 11.1 INTRODUCTION

### 11.1.1 Background and Objectives



This chapter of the EIAR assesses the likely significant direct and indirect effects of the Development on the landscape and visual amenity of the receiving environment. Although closely linked, landscape and visual effects are assessed separately. Where significant effects are predicted, the chapter identifies appropriate mitigation strategies therein. The assessment will consider the potential effects during the following phases of the Development:

- Construction of the Development
- Operation of the Development
- Decommissioning of the Development (final phase)

The Development refers to all elements of the application for the construction, operation and decommissioning of the proposed Moanmore Lower Wind Farm (see **Chapter 2: Project Description**).

Common acronyms used throughout this EIAR can be found in **Appendix 1.4**.

This chapter of the EIAR is supported by a portfolio of photomontages, which is provided as a separate booklet in the following technical appendix document within **Volume IV** of this EIAR:

- **Technical Appendix 11.1: Visual Impact Assessments**

In accordance with relevant guidance listed in **Section 11.2.2**.;

**Landscape Impact Assessment (LIA)** relates to changes in the physical landscape brought about by the Development, which may alter its character, and how this is experienced. This requires a detailed analysis of the individual elements and characteristics of a landscape that go together to make up the overall landscape character of that area. By understanding the aspects that contribute to landscape character, it is possible to make judgements in relation to its quality (integrity) and to identify key sensitivities. This, in turn, provides a measure of the ability of the landscape in question to accommodate the type and scale of change associated with the Development without causing unacceptable adverse changes to its character.

**Visual Impact Assessment (VIA)** relates to assessing effects on specific views and on the general visual amenity experienced by people. This deals with how the surroundings of

individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements. Visual effects may occur from: visual obstruction (blocking of a view, be it full, partial or intermittent) or Visual Intrusion (interruption of a view without blocking).



**Cumulative landscape and visual impact assessment** is concerned with additional changes to the landscape or visual amenity caused by the Development in conjunction with all other existing, consented or planned developments (associated or separate to it)

### 11.1.2 Assessment Structure

In accordance with the 'Guidelines for Landscape and Visual Impact Assessment (2013)', the structure of this chapter will consist of separate considerations of landscape effects and visual effects in the following order:

- Assessment of landscape value and sensitivity
- Assessment of the magnitude of landscape effects within the Study Area
- Assessment of the significance of landscape effects
- Assessment of visual receptor sensitivity
- Assessment of visual impact magnitude at representative viewpoint locations (using photomontages)
- Assessment of visual impact significance
- Assessment of cumulative landscape and visual effects

### 11.1.3 Statement of Authority

This Landscape and Visual Impact Assessment was prepared by Bridget Macfarlane (BLA hons), LVIA Specialist at Macro Works Ltd (Part of APEM Group). Bridget is a Landscape Architect with over five years' experience.

The LVIA has been reviewed by Richard Barker, Divisional Director in Macro Works, and Landscape Architect affiliated with the Irish Landscape Institute. Richard has undertaken LVIA work for over 90 wind farms amongst numerous other development projects in Ireland and has considerable oral hearing training and expert witness experience.

Macro Works is a specialist LVIA consultancy with over 20 years of experience in the appraisal of effects from a variety of energy, infrastructure and commercial developments. Macro Works' relevant experience includes LVIA work on over 140 on-shore wind farm proposals throughout Ireland, including 6 Strategic Infrastructure Development (SID) wind

farms. Macro Works and its senior staff members are affiliated with the Irish Landscape Institute.



### 11.1.4 Description of the Proposed Development

A full project description can be found in **Chapter 2: Project Description**.

## 11.2 ASSESSMENT METHODOLOGY AND SIGNIFICANCE CRITERIA

### 11.2.1 Assessment Methodology

Production of this Landscape and Visual Impact Assessment (LVIA) involved baseline work in the form of desktop studies and fieldwork comprising professional evaluation by qualified and experienced Landscape Architects. The assessment is undertaken in accordance with relevant guidance and professional best practice in Ireland and the UK for LVIA in general and specifically for wind energy LVIA. This entailed the following:

#### *11.2.1.1 Desktop Study*

- Establishing an appropriate Study Area from which to study the landscape and visual effects of the Development.
- Review of a Zone of Theoretical Visibility (ZTV) map, which indicates areas from which the Development is potentially visible in relation to terrain within the Study Area.
- Review of relevant County Development Plans (CDP), particularly with regard to sensitive landscape and scenic view/route designations (section 11.3.4).
- Selection of potential Viewshed Reference Points (VRPs) from key visual receptors to be investigated during fieldwork for actual visibility and sensitivity.

#### *11.2.1.2 Fieldwork*

Macro Works has a comprehensive understanding of the site context within the wider Study Area and has carried out numerous site visits to the locality over the last 10+ years. Site visits to potential VRP locations and the Wider Study Area were carried out in October 2022, to gain a baseline understanding of landscape context and to interrogate the ZTV. Site visits also included the capture of baseline photography and grid reference coordinates for each location for use in the production of photomontages.

#### *11.2.1.3 Appraisal*

- Consideration of the receiving landscape with regard to overall landscape character as well as the salient features of the Study Area including landform, drainage, vegetation, land use and landscape designations.

- Consideration of the visual environment including receptor locations such as centres of population and houses, transport routes, public amenities and facilities and designated and recognised views of scenic value.
- Consideration of design guidance and planning policies.
- Consideration of potentially significant construction stage and operational stage effects and the mitigation measures that could be employed to reduce such effects.
- Assessment of the significance of residual effects on landscape.
- Assessment of the significance of residual visual effects aided by photomontages prepared at all of the selected VRP locations.
- Assessment of cumulative landscape and visual effects in cumulation with other surrounding developments that are either existing or permitted.

### 11.2.2 Relevant Legislation and Guidance

This LVIA uses methodology that is in accordance with that prescribed in the following guidance documents in accordance with established best practice for LVIA in Ireland and the UK:

- Environmental Protection Agency (EPA) publication 'Guidelines on the Information to be contained in Environmental Impact Assessment Reports (2022) and the accompanying Advice Notes on Current Practice in the Preparation of Environmental Assessment Reports(2018).
- **European Commission** (2017). *Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU)*. European Commission.
- Department of Environment Heritage and Local Government (DoEHLG) Wind Energy Planning Guidelines (2006)
- Draft Wind Energy Development Guidelines for Planning Authorities (DHPLG, 2019).
- Landscape Institute and the Institute of Environmental Management and Assessment publication entitled Guidelines for Landscape and Visual Impact Assessment (2013).
- Scottish Natural Heritage (SNH) Guidance Note: 'Assessing the cumulative impact of onshore wind energy developments' (2012).
- Scottish Natural Heritage (SNH) Siting and Designing Wind Farms in the Landscape Version 3 (2017).

It should be noted that in relation to the Draft Revised Wind Energy Development Guidelines (2019) - these are unchanged from the current 2006 Guidelines in relation to landscape and visual specific sections. The key element of change relevant to the LVIA in the Draft Revised

Guidance is the 4 X turbine tip height set back from nearest residential properties, which has been complied with in this instance.



### 11.2.3 Definition of Study Area

The Wind Energy Development Guidelines published by the Department of the Environment, Heritage and Local Government (2006) specify different radii for examining the zone of theoretical visibility of proposed wind farm projects (ZTV). The extent of this search area is influenced by turbine height, as follows:

- 15km radius for blade tips up to 100m
- 20km radius for blade tips greater than 100m
- 25km radius where landscapes of national and international importance exist.

In the case of this project, the blade tips are 150m high and, thus, the minimum ZTV radius recommended is 20km from the outermost turbines of the scheme. There are not considered to be any sites of national or international importance between 20 – 25km and thus, the radius of the Study Area will remain at 20km. Notwithstanding the full 20km extent of the LVIA Study Area, there will be a particular focus on receptors and effects within the Central Study Area where there is higher potential for significant effects to occur. When referenced within this assessment, the 'Central Study Area' is the landscape within 5km of the Site. Relevant guidance does not require a Central Study Area to be defined, but it has become standard / best practice to highlight the distinction between the immediate context of the site and the wider context of the study area.

### 11.2.4 Computer Generated Images, Photomontages and Wireframes

This LVIA is supported by a variety of computer-generated maps and graphics as well as verifiable photomontages that depict the Development within the views from a range of represented visual receptor locations. These maps, graphics and visualisations consist of the following:

- Zone of Theoretical Visibility (ZTV) maps.
- Photomontages consisting of existing views, wireframe views and proposed views.

### 11.2.5 Assessment Criteria for Landscape Effect

The classification system used by Macro Works to determine the significance of landscape and visual effects is based on the IEMA Guidelines for Landscape and Visual Impact Assessment (2013). When assessing the potential effects on the landscape resulting from a wind farm development, the following criteria are considered:

- Landscape character, value and sensitivity

- Magnitude of likely effects
- Significance of landscape effects



The sensitivity of the landscape to change is the degree to which a particular landscape receptor (Landscape Character Area (LCA) or feature) can accommodate changes or new features without unacceptable detrimental effects to its essential characteristics. Landscape Value and Sensitivity is classified using the following criteria:

**Table 11.1: Landscape Value and Sensitivity**

| Sensitivity | Description |
|---|---|
| Very High | Areas where the landscape character exhibits a very low capacity for change in the form of development. Examples of which are high value landscapes, protected at an international or national level (World Heritage Site/National Park), where the principal management objectives are likely to be protection of the existing character. |
| High | Areas where the landscape character exhibits a low capacity for change in the form of development. Examples of which are high value landscapes, protected at a national or regional level (Area of Outstanding Natural Beauty), where the principal management objectives are likely to be considered conservation of the existing character. |
| Medium | Areas where the landscape character exhibits some capacity and scope for development. Examples of which are landscapes which have a designation of protection at a county level or at non-designated local level where there is evidence of local value and use. |
| Low | Areas where the landscape character exhibits a higher capacity for change from development. Typically, this would include lower value, non-designated landscapes that may also have some elements or features of recognisable quality, where landscape management objectives include, enhancement, repair and restoration. |
| Negligible | Areas of landscape character that include derelict, mining, industrial land or are part of the urban fringe where there would be a reasonable capacity to embrace change or the capacity to include the development proposals. Management objectives in such areas could be focused on change, creation of landscape improvements and/or restoration to realise a higher landscape value. |

The magnitude of a predicted landscape impact is a product of the scale, extent or degree of change that is likely to be experienced as a result of the Development. The magnitude takes into account whether there is a direct physical impact resulting from the loss of landscape components and/or a change that extends beyond the Site Boundary that may have an effect on the landscape character of the area.

**Table 11.2: Magnitude of Landscape Effects**

| Sensitivity | Description |
|---|---|

| | |
|---|---|
| Very High | Change that would be large in extent and scale with the loss of critically important landscape elements and features, that may also involve the introduction of new uncharacteristic elements or features that contribute to an overall change of the landscape in terms of character, value and quality. |
| High | Change that would be more limited in extent and scale with the loss of important landscape elements and features, that may also involve the introduction of new uncharacteristic elements or features that contribute to an overall change of the landscape in terms of character, value and quality. |
| Medium | Changes that are modest in extent and scale involving the loss of landscape characteristics or elements that may also involve the introduction of new uncharacteristic elements or features that would lead to changes in landscape character, and quality. |
| Low | Changes affecting small areas of landscape character and quality, together with the loss of some less characteristic landscape elements or the addition of new features or elements. |
| Negligible | Changes affecting small or very restricted areas of landscape character. This may include the limited loss of some elements or the addition of some new features or elements that are characteristic of the existing landscape or are hardly perceivable. |



The significance of a landscape impact is based on a balance between the sensitivity of the landscape receptor and the magnitude of the impact. The significance of landscape effects is arrived at using the following matrix:

**Table 11.3: Landscape Impact Significance Matrix**

| | **Sensitivity of Receptor** | | | | |
|---|---|---|---|---|---|
| **Scale/Magnitude** | *Very High* | *High* | *Medium* | *Low* | *Negligible* |
| *Very High* | Profound | Profound-substantial | Substantial | Moderate | Slight |
| *High* | Profound-substantial | Substantial | Substantial-moderate | Moderate-slight | Slight-imperceptible |
| *Medium* | Substantial | Substantial-moderate | Moderate | Slight | Imperceptible |
| *Low* | Moderate | Moderate-slight | Slight | Slight-imperceptible | Imperceptible |
| *Negligible* | Slight | Slight-imperceptible | Imperceptible | Imperceptible | Imperceptible |

*Note: Judgements deemed 'substantial' and above are considered to be 'significant effects' in EIA terms.*

*(Table derived from the EPA EIAR guidelines, GLVIA3 and best practice )*

### 11.2.6 Assessment Criteria for Visual Effect

As with the landscape impact, the visual impact of the Development will be assessed as a function of receptor sensitivity versus magnitude. In this instance, the sensitivity of visual receptors, weighed against the magnitude of visual effects.



#### *11.2.6.1 Visual Sensitivity*

Unlike landscape sensitivity, visual sensitivity has a human basis. Visual sensitivity is a two-sided analysis of receptor susceptibility (people or groups of people) versus the value of the view on offer at a particular location.

To assess the susceptibility of viewers and the amenity value of views, the assessors use a range of criteria and provide a four-point weighting scale to indicate how strongly the viewer/view is associated with each of the criterion. Susceptibility criteria is extracted directly from the IEMA Guidelines for Landscape and Visual Assessment (2013), whilst the value criteria relate to various aspects of a view that might typically be related to high amenity including, but not limited to, scenic designations. These are set out below:

**Susceptibility of receptor group to changes in view**. This is one of the most important criteria to consider in determining overall visual sensitivity because it is the single category dealing with viewer susceptibility. In accordance with the IEMA Guidelines for Landscape and Visual Assessment (3rd edition 2013) visual receptors most susceptible to changes in views and visual amenity are:

- *"Residents at home*
- *People, whether residents or visitors, who are engaged in outdoor recreation, including use of public rights of way, whose attention or interest is likely to be focussed on the landscape and on particular views*
- *Visitors to heritage assets, or to other attractions, where views of the surroundings are an important contributor to the experience*
- *Communities where views contribute to the landscape setting enjoyed by residents in the area*
1. *Travellers on road rail or other transport routes where such travel involves recognised scenic routes and awareness of views is likely to be heightened".*

*"Visual receptors that are less susceptible to changes in views and visual amenity include:*

- *People engaged in outdoor sport or recreation, which does not involve or depend upon appreciation of views of the landscape*

2. *People at their place of work whose attention may be focussed on their work or activity, not their surroundings and where the setting is not important to the quality of working life".*



**View Value**

**Recognised scenic value of the view** (County Development Plan designations, guidebooks, touring maps, postcards etc.). These represent a consensus in terms of which scenic views and routes within an area are strongly valued by the population because in the case of County Development Plans, at least, a public consultation process is required.

**Views from within highly sensitive landscape areas**. Again, highly sensitive landscape designations are usually part of a county's Landscape Character Assessment, which is then incorporated with the County Development Plan. Viewers within such areas are likely to be highly attuned to the landscape around them.

**Intensity of use, popularity**. Whilst not reflective of the amenity value of a view, this criterion relates to the number of viewers likely to experience a view on a regular basis and whether this is significant at county or regional scale.

**Provision of elevated panoramic views**. This relates to the extent of the view on offer and the tendency for receptors to become more attuned to the surrounding landscape at locations that afford broad vistas.

**Sense of remoteness and/or tranquillity**. Remote and tranquil viewing locations are more likely to heighten the amenity value of a view and have a lower intensity of development in comparison to dynamic viewing locations such as a busy street scene.:

**Degree of perceived naturalness**. Where a view is valued for the sense of naturalness of the surrounding landscape it is likely to be highly sensitive to visual intrusion by obvious human interventions.

**Presence of striking or noteworthy features**. A view might be strongly valued because it contains a distinctive and memorable landscape feature such as a promontory headland, lough or castle.

**Historical, cultural or spiritual value**. Such attributes may be evident or sensed at certain viewing locations that attract visitors for the purposes of contemplation or reflection heightening the sense of their surroundings.

**Rarity or uniqueness of the view**. This might include the noteworthy representativeness of a certain landscape type and considers whether other similar views might be afforded in the local or the national context.

**Integrity of the landscape character in view**. This criterion considers the condition and intactness of the landscape in view and whether the landscape pattern is a regular one of few strongly related components or an irregular one containing a variety of disparate components.

**Sense of place**. This criterion considers whether there is special sense of wholeness and harmony at the viewing location.

**Sense of awe**. This criterion considers whether the view inspires an overwhelming sense of scale or the power of nature.

Those locations where highly susceptible receptors or receptor groups are present and which are deemed to satisfy many of the view value criteria above are likely to be judged to have a high visual sensitivity and vice versa.

#### *11.2.6.2 Visual Impact Magnitude*

The magnitude of visual effects is determined on the basis of two factors; the visual presence of the proposal and its effect on visual amenity.

Visual presence is a somewhat quantitative measure relating to how noticeable or visually dominant the proposal is within a particular view. This is based on a number of aspects beyond simply scale in relation to distance. Some of these include the extent of the view as well as its complexity and the degree of existing contextual movement experienced such as might occur where turbines are viewed as part of / beyond a busy street scene. The backdrop against which the Development is presented and its relationship with other focal points or prominent features within the view is also considered. Visual presence is essentially a measure of the relative visual dominance of the proposal within the available vista and is expressed as such i.e. minimal, sub-dominant, co-dominant, dominant, highly dominant.

For wind energy developments, a strong visual presence is not necessarily synonymous with significant effects. Instead, the 2012 Fáilte Ireland survey entitled 'Visitor Attitudes on The Environment – Windfarms' found that:

*"Compared with other types of development in the Irish landscape, windfarms elicited a positive response when compared to telecommunication masts and steel electricity pylons"*



…. and that

*"most* (tourists) *felt that their presence did not detract from the quality of their sightseeing, with the largest proportion (45%) saying that the presence of the windfarm had a positive impact on their enjoyment of sightseeing…*".

The purpose here is not to suggest that turbines are either inherently liked or disliked, but rather to highlight that the assessment of visual impact magnitude for wind turbines is more complex than just the degree to which turbines occupy a view. Furthermore, a clear and comprehensive view of a wind farm might be preferable in many instances to a partial, cluttered view of turbine components that are not so noticeable within a view. On the basis of these reasons, the visual amenity aspect of assessing impact magnitude is qualitative and considers such factors as the spatial arrangement of turbines both within the scheme and in relation to surrounding terrain and land cover. It also examines whether the Development contributes positively to the existing qualities of the vista or results in distracting visual effects and disharmony.

It should be noted that as a result of this two-sided analysis, a high order visual presence can be moderated by a low level of effect on visual amenity and vice versa. Given that wind turbines do not represent significant bulk; visual effects result almost entirely from visual 'intrusion' rather than visual 'obstruction' (the blocking of a view). The magnitude of visual effects is classified in the following table derived from the Landscape Institute and the Institute of Environmental Management and Assessment (IEMA) publication entitled Guidelines for Landscape and Visual Impact Assessment, 2013 (GLVIA3) Guidelines for Landscape and Visual Impact Assessment:

**Table 11.4: Magnitude of Visual Effects**

| Sensitivity | Description |
|---|---|
| Very High | The proposal intrudes into a large proportion or critical part of the available vista and is without question the most noticeable element. A high degree of visual disorder or disharmony is also generated, strongly reducing the visual amenity of the scene. |

| Sensitivity | Description |
|---|---|
| High | The proposal intrudes into a significant proportion or important part of the available vista and is one of the most noticeable elements. A considerable degree of visual disorder or disharmony is also likely to be generated, appreciably reducing the visual amenity of the scene. |
| Medium | The proposal represents a moderate intrusion into the available vista, is a readily noticeable element and/or it may generate a degree of visual disorder or disharmony, thereby reducing the visual amenity of the scene. Alternatively, it may represent a balance of higher and lower order estimates in relation to visual presence and visual amenity. |
| Low | The proposal intrudes to a minor extent into the available vista and may not be noticed by a casual observer and/or the proposal would not have a marked effect on the visual amenity of the scene. |
| Negligible | The proposal would be barely discernible within the available vista and/or it would not detract from, and may even enhance, the visual amenity of the scene. |



#### *11.2.6.3 Visual Impact Significance*

As stated above, the significance of visual effects is a function of visual receptor sensitivity and visual impact magnitude. This relationship is expressed in the significance matrix in **Table 11.3** above.

#### *11.2.6.4 Quality and Timescale of Effects*

In addition to assessing the significance of landscape effects and visual effects, EPA Guidance for EIARs requires that the quality of the effects is also determined. This could be negative/adverse, neutral, or positive/beneficial. Landscape and Visual effects are also categorised according to their duration:

- Temporary – Lasting for one year or less;
- Short Term – Lasting one to seven years;
- Medium Term – Lasting seven to fifteen years;
- Long Term – Lasting fifteen years to sixty years; and
- Permanent – Lasting over sixty years.

Similarly, the duration of effects will typically be long term, where the average wind farm lifespan is between 20-40 years.

Construction, Operational and De-commissioning phases and their relative durations are all considered separately

#### *11.2.6.5 Assessment Criteria for Cumulative Effects*

The Scottish Natural Heritage (SNH) Guidance relating to 'Assessing the Cumulative Effects of Onshore Wind Farms (2012) identify that cumulative effects on visual amenity consist of combined visibility and sequential effects. The same categories have also been subsequently adopted in the Landscape Institute's 2013 revision of the Landscape and Visual Impact Assessment Guidelines. The principal focus of wind energy cumulative impact assessment guidance relates to other wind farms - as opposed to other forms of development. This will also be the main focus herein, albeit with a subsequent consideration of cumulative effects with other forms of notable development (existing, permitted or proposed), particularly within the Central Study Area.

*'Combined visibility occurs where the observer is able to see two or more developments from one viewpoint. Combined visibility may either be in combination (where several wind farms are within the observer's arc of vision at the same time) or in succession (where the observer has to turn to see the various wind farms).*

*Sequential effects occur when the observer has to move to another viewpoint to see different developments. The occurrence of sequential effects may range from frequently sequential (the features appear regularly and with short time lapses between, depending on speed of travel and distance between the viewpoints) to occasionally sequential (long time lapses between appearances, because the observer is moving very slowly and / or there are large distances between the viewpoints.)'*

Based on guidance contained within the SNH Guidelines relating to the Cumulative Effects of Wind Farms (2021) and the DoEHLG Wind Energy Guidelines (2006), cumulative effects can be experienced in a variety of ways.

**Table 11.5** below provides Macro Works' criteria for assessing the magnitude of cumulative effects, which are in accordance with the SNH Guidelines (2021).

**Table 11.5: Magnitude of Cumulative Effects**

| Magnitude of Impact | Description |
|---|---|
| Very High | • The proposed wind farm will strongly contribute to wind energy development being the defining element of the surrounding landscape.<br>• It will strongly contribute to a sense of wind farm proliferation and being surrounded by wind energy development.<br>• Strongly adverse visual effects will be generated by the proposed turbines in relation to other turbines. |

| Magnitude of Impact | Description |
|---|---|
| High | • The proposed wind farm will contribute significantly to wind energy development being a defining element of the surrounding landscape.<br>• It will significantly contribute to a sense of wind farm proliferation and being surrounded by wind energy development.<br>• Significant adverse visual effects will be generated by the proposed turbines in relation to other turbines. |
| Medium | • The proposed wind farm will contribute to wind energy development being a characteristic element of the surrounding landscape.<br>• It will contribute to a sense of wind farm accumulation and dissemination within the surrounding landscape.<br>• Adverse visual effects might be generated by the proposed turbines in relation to other turbines. |
| Low | • The proposed wind farm will be one of only a few wind farms in the surrounding area and will be viewed in isolation from most receptors.<br>• It might contribute to wind farm development becoming a familiar feature within the surrounding landscape.<br>• The design characteristics of the proposed wind farm accord with other schemes within the surrounding landscape and adverse visual effects are not likely to occur in relation to these. |
| Negligible | • The proposed wind farm will most often be viewed in isolation or occasionally in conjunction with other distant wind energy developments.<br>• Wind energy development will remain an uncommon landscape feature in the surrounding landscape.<br>• No adverse visual effects will be generated by the proposed turbines in relation to other turbines. |



## 11.3 BASELINE DESCRIPTION

### 11.3.1 Landscape Baseline

The landscape baseline represents the existing landscape context and is the scenario against which any changes to the landscape brought about by the Development will be assessed. This also includes reference to any relevant landscape character appraisals and the current landscape policy context (both are generally contained within County Development Plans). Relevant County Development Plans in this instance include County Clare, within which the development is located, as well as County Kerry and County Limerick, which both have areas that are contained within the wider study area to the south and southeast respectively.

A description of the landscape context of the proposed wind farm Site and Study Area is provided below under the headings of landform and drainage, vegetation and land use, centres of population, transport routes and public amenities and facilities as well as the immediate site context. Additional descriptions of the landscape, as viewed from each of the selected viewpoints, are provided under the detailed assessments later using a similar structure. Although this description forms part of the landscape baseline, many of the landscape elements identified also relate to visual receptors i.e., places and transport routes from which viewers can potentially see the proposed Development. The visual resource will be described in greater detail below. **Figure 11.1** shows the Site in its landscape context and the immediate surrounds.




**Figure 11.1: Aerial photograph showing the landscape context of the site and its immediate surrounds.**

### 11.3.2 Landform and Drainage



The site is contained within a slightly-sloping, low lying area approx. 3km to the north of the mouth of the River Shannon. This estuary serves as a transition between the intricate Atlantic coastline on the outer edge of the Study Area to the west and southwest, and the more elevated, upland areas to the north and east. The landscape within the Study Area is intermittently punctuated with small loughs and connecting waterways, as well as estuary bays such as Clonderalaw Bay and Poulnasherry Bay. Aside from the Shannon, there are multiple watercourses, the largest of which is the Doonbeg River, in the north of the Study Area.

The landscape of the Study Area can be best described as a series of four distinct quadrants to the northeast, southeast, southwest and northwest. The north-eastern quadrant of the Study Area is dominated by gradually inclining topography, which rarely exceeds 200m AOD, of undulating commercial conifer plantations and peat bogs, backed by Slievecallan Mountain (a few kilometres outside the Study Area). The south-eastern and southwestern quadrants are dominated by the River Shannon Estuary, which defines the main boundary between County Kerry/County Limerick to the south and County Clare to the north of the estuary. Finally, the north-western quarter of the Study Area is contained in slightly undulating coastal bog and marginal farmland, backed by the rugged Atlantic coastline. The broad landscape of the Site and its immediate context serves as the dividing feature between the River Shannon Estuary to the south and the elevated upland area dominating the north-eastern quadrant of the Study Area.




**Figure 11.2: Impression of the northeast and northwest quadrants of the Study Area**

**Figure 11.3: Impression of the southeast and southwest quadrants of the Study Area**

### 11.3.3 Vegetation and Land use

The vegetation and land use follows the varied topography of the Study Area, which can be divided into quadrants for the purposes of describing it. Throughout the north-western coastal context, shoreline farmland mixes with riparian scrub and woodland and is dotted with rural residences and holiday homes vying for coastal views. The Slievecallan uplands in the north-eastern quadrant contain significant portions of mountain moorland on its elevated slopes and ridges, alongside dense patches of conifer plantations. Less commonly, there are some areas of upland grazing, which give way to valley farmland in lower-lying areas.

Of particular note is that this area has also become synonymous with wind energy developments in recent decades and numerous turbines are contained within predominantly the elevated moorland areas, between conifer plantations  A large portion of the south-eastern and south-western quadrants is dominated by the River Shannon Estuary. The south-eastern and south-western quadrant are therefore predominantly contained in coastal

peat bog and marshy grassland towards the banks of the Shannon Estuary, with occasional patches of forest plantation and farmland further inland, where drainage allows.



The settlements of Kilrush, Kilkee, Doonbeg, Cooraclare and Tarbert account for the only notable urban land cover within the Study Area. Industrial and energy related land use is one of the defining features of this area due to its proximity to the River Shannon, which is used to access the busy Foynes Port and large Aughinish Alumina Plant, upriver to the east of the Study Area. The Tarbert and Moneypoint power stations, which lie on opposite sides of the Shannon within the Study Area, are the key electrical infrastructure nodes for the west of Ireland. Aside from being substantial industrial facilities in their own right, they provide hubs for numerous high voltage electricity lines which converge on them. At over 200m tall, the twin chimneys at Moneypoint are the second tallest structures in the country. Adding to this energy related land use, is a busy container shipping lane through the centre of the estuary that serves the industrial port of Foynes, east of the Study Area, as well as the presence of a number of operational wind farms which are situated throughout the central and Wider Study Area (see section 11.3.7). The nearest of these, Moanmore Wind Farm and Tullabrack Wind Farm, are located within 3km to the northeast of the proposed wind farm.

The Site itself comprises part of a former exploited/cutaway bog much of which is partially used for agricultural farming. The adjacent lands consist of agricultural farmland of a more intensive scale with a considerable degree of transitional woodland scrub with patches of exposed peatland in areas. Evidence of commercial forestry can be seen to the north and south of site.


**Figure 11.4: Landcover of the Site surrounds**

### 11.3.4 Landscape Policy Context and Designations

#### *11.3.4.1 The Department of Environment, Heritage and Local Government Wind Energy Development Guidelines (2006)*

The Wind Energy Development Guidelines (2006) provide guidance on wind farm siting and design criteria for a number of different landscape types. The site of the proposed Development is considered to be located within a relatively complex landscape setting that is more consistent with the 'Hilly and Flat Farmland' landscape type than other landscape types from the Wind Energy Development Guidelines. However, the wider context does encompass characteristics from a mix of the landscape types including, 'Transitional Marginal Land', 'Coast' and 'Flat Peatland'.

The most relevant recommendations for the 'Hilly and Flat Farmland' landscape type is set out below, but with consideration of the guidance relating to other relevant landscape types considered thereafter.

**Hilly and Flat Farmland:**

***Location*** – *"Location on ridges and plateaux is preferred, not only to maximise exposure but also to ensure a reasonable distance from dwellings. Sufficient distance should be maintained from farmsteads, houses and centres of population in order to ensure that wind energy developments do not visually dominate them. Elevated locations are also more likely to achieve optimum aesthetic effect. Turbines perceived as being in close proximity to, or overlapping other landscape elements, such as buildings, roads and power or telegraph poles*

*and lines may result in visual clutter and confusion. While in practice this can be tolerated, in highly sensitive landscapes every attempt should be made to avoid it."*

***Spatial extent*** - *"This can be expected to be quite limited in response to the scale of fields and such topographic features as hills and knolls. Sufficient distance from buildings, most likely to be critical at lower elevations, must be established in order to avoid dominance by the wind energy development."*

*The examples of appropriate and inappropriate types of spatial extent for wind energy developments outline that a small spatial extent with a grid or linear layout is deemed appropriate in this landscape type, considering the field patterns typically present in a Hilly and Flat Farmland landscape.*

*"2(a) Wind energy development of large spatial extent … is inappropriate…"*

*"2(b)Wind energy development of small spatial extent – this example is appropriate given the scale of this landscape.*

*"2(c)Wind energy development with random layout - this response is inappropriate given the patchwork field pattern of this landscape.*

*"2(d) Wind energy development with grid layout - this response involving any form of linear layout and regular spacing is appropriate given the patchwork field pattern of this landscape.*

*"2(e) Small wind energy development with regular linear layout - the rhythmic order is more appropriate to this landscape due to the order created by the field pattern.*

***Spacing*** - *"The optimum spacing pattern is likely to be regular, responding to the underlying field pattern. The fields comprising the site might provide the structure for spacing of turbines. However, this may not always be the case and a balance will have to be struck between adequate spacing to achieve operability and a correspondence to field pattern."*

***Layout*** - *"The optimum layout is linear, and staggered linear on ridges (which are elongated) and hilltops (which are peaked), but a clustered layout would also be appropriate on a hilltop. Where a wind energy development is functionally possibly on a flat landscape a grid layout would be aesthetically acceptable."*

***Height*** - *"Turbines should relate in terms of scale to landscape elements and will therefore tends not to be tall. However, an exemption to this would be where they are on a high ridge or hilltop of relatively large scale. The more undulating the topography the greater the acceptability of an uneven profile, provided it does not result in significant visual confusion and conflict."*

***Cumulative*** *-"It is important that wind energy development is never perceived to visually dominate. However, given that these landscapes comprise hedgerows and often hills, and that views across the landscape will likely be intermittent and partially obscured, visibility of two or more wind energy development is usually acceptable."*



Most design options appear to be appropriate for 'Hilly and Flat Farmland' and vary depending on the specific site. In respect of the above guidance, the modest spatial extent and grid layout of the proposed Development is in keeping with that recommended for Hilly and Flat Farmland.

#### *11.3.4.2 Clare County Development Plan 2023-2029*

The current Clare County Development Plan contains a Landscape Character Assessment which divides the county into 26 different Landscape Character Types (LCTs), which are then used as the basis to determine 21 geographically distinct Landscape Character Areas (LCAs). For most counties there are much fewer generic LCTs than LCAs. The fact that this trend is reversed for County Clare is more an indication of the diverse range of its landscapes than a divergent approach to landscape character assessment.

The proposed Development is contained within LCT Flat Estuarine Farmland and Islands, described as a *'Distinctively flat farmland adjacent to estuaries, which are inundated daily by the tide…Land cover is pasture combined with estuarine elements such as mudflats and salt marsh with little tree cover. Fields are enclosed largely by ditches (reflecting the poorly drained characteristic), with occasional banks or hedgerows and post and wire fences. Limited roads are often located on elevated causeways through the wetter areas. Settlement is quite limited, confined to areas of higher ground and the low hills which are found occasionally through these areas.'*

The adjacent lands to the north of the site is within LCT – Coastal Plain and Dunes. ***Error! Reference source not found.***, indicates the location of the Site in relation to the County Clare Landscape Character Types. The adjacent lands to the east of the site is contained within LCT 'Farmed Rolling Hills'.

Correspondingly, the Site is contained entirely within 'LCA21 – Loop Head',' with the adjacent lands to the southeast (600m away) 'LCA18 – Shannon Estuary Farmland' and approximately 2.5km to the east is 'LCA19 – Kilrush Farmland.' These LCAs are described as follows:

**LCA21 – Loop Head**

The key characteristics of this landscape include:

- *'Flat peninsular farmland – very distinctive ladder fields, estuaries, salt marsh and mudflats, sand and boulder coves, shelving coastal rocks, vertical cliffs.*
- *Coast becomes increasingly dramatic towards Loop Head with high cliffs, arches, stacks and rocky inlets. More sheltered bays are typically on the southern side of the peninsula.*
- *The presence of the sea is always apparent and the character of the land reflects the mood of the weather and the storminess of the seas.*
- *The area is remote and feels remote and detached, with peaceful rural unspoilt qualities.*
- *Settlement is more concentrated along the southern peninsula, increasing again towards Kilkee.*

*The area is in good condition and is increasingly intact as one travels west. Traditional settlement patterns and the distinctive ladder fields remain largely unaffected by modern development and agricultural change. Both farm buildings and land appear to be well maintained, and some larger modern farm buildings are apparent within the landscape. The area is relatively free from tourist related development with a few scattered car parks and picnic areas scattered along the coast, and a concentration of holiday development at Kilkee, the main settlement in the area. Here, caravan parks, amusement arcades etc indicate that this is a long established coastal resort.*

*Large-scale development would be very evident due to the flat open nature of the area with expansive skies. Traditional small-scale housing development of scattered white painted cottages could be accommodated. The area would be particularly vulnerable to pressures such as windfarms, masts etc. Extensive views are afforded from the sheltered southern coast over to Kerry and along the western seaboard from Loop Head and along the northern coastline. The natural grassland at Loop Head is classified as visually sensitive and vulnerable under the county development plan. The whole of this coastline is also designated as an area of high amenity under the same plan.'*

**LCA18 – Shannon Estuary Farmland**

The key characteristics of this landscape include:

- *'Prominently ridged landscape, with linear hills aligned south-west to north-east.*

- *Secluded areas interspersed with more open views. Views are afforded across the Shannon estuary and across to Limerick from elevated areas and on the estuary shores.*
- *Coastal fringe is flatter and slopes down towards the sea.*
- *Diverse habitat and land cover.*
- *Scattery Island is an important historical and focal feature.*
- *Complex patterns of pasture, woodland and scrub habitats.*
- *Old Vandeleur Estate plantations, gardens and restored woodland recreation area.*

*This area is of variable condition. In parts, the traditional landscape pattern dominates. The area is more intact in the east and north, where it is less accessible. Occasional modern residential development along the estuary line can be inappropriate and not reflective of local styles. Around Kilrush and along the coast, tourist and holiday home development has also adversely affected the landscape. Moneypoint power station is a singularly large-scale detractor on the Shannon, accompanied by a number of prominent pylons. The ridges create many small-scale areas unsuitable for large development. The sensitivity remains higher in the more intact areas, with elevated areas also sensitive due to their increased visibility. The estuary coastline is partly degraded due to infrastructure and the industrial activity within the Shannon estuary. The woodland scrub around Clonderlaw Bay and the broadleaved areas in the grounds of Kilrush house are classified as visually vulnerable and sensitive under the county development plan. The coastline to Clonderlaw Bay is also classified as an area of high amenity under this plan.'*

**LCA19 – Kilrush Farmland** (also named Kilmihil Farmlands)

The key characteristics of this landscape include:

- *'Undulating to rolling hills, medium-high elevation. Some drumlin type landforms but these do not dominate.*
- *Complex mix of moorland and farmland.*
- *Occasional flatter areas within hills, such as Creegh River Valley*
- *Scattered settlement across the area with Kilmihil, Creegh and*
- *Curraclare the only villages.*
- *Kilmihil town is a designated ACA (Architectural Conservation Area).*

*The condition of this area is moderate, with the areas close to the principal corridor routes disturbed and showing evidence of agricultural decline and lack of maintenance. Away from the major route, it is more intact and rural in character. However, even these areas are*

*subject to agricultural degradation, arising from intensification, afforestation, abandonment and the construction of poorly sited farm buildings.'*



Whilst the County Landscape Character Assessment provides an objective appraisal of the various landscapes of County Clare, it does not apply the more subjective aspect of landscape sensitivity. Instead, landscape policy is driven by determining which of three categories a particular landscape falls into and these are based around the various LCAs. The landscape of County Clare is subdivided into Living Landscape types which area outlined below:

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

By implication, 'Working Landscapes' are more robust areas of strategic development whilst 'Heritage Landscapes' such as the Burren are highly sensitive. Permissive or protective landscape objectives are applied accordingly. The remainder, and majority of the county, falls into the settled landscapes category by default. The landscape related objectives for this category seek to strike a balance between appropriate development and retaining landscape character and amenity.

The Site and the overwhelming majority of the central Study Area are contained within the 'Settled Landscapes' category (Figure 11.4 refers) and the relevant landscape objectives from the Clare County Development Plan are provided below:

***A –*** *To permit development in these areas that will sustain economic activity and enhance social well-being and quality of life – subject to conformity with all other relevant provisions of the Plan and the availability and protection of resources.*

***B –*** *That selection of appropriate sites in the first instances within this landscape, together within the consideration of the details of siting and design, are directed towards minimising visual impact.*

***C –*** *That particular regard should be given to avoiding intrusions on scenic routes and on ridges or shorelines. Developments in these areas will be required to demonstrate:*

1. *That the site has been selected to avoid visually prominent locations*
2. *That site layouts avail of existing topography and vegetation to reduce visibility from scenic routes, walking trails, public amenities and roads;*

3. *That design for buildings and structures reduce visual impact through careful choice of form, finishes and colours and that any site works seek to reduce visual impact of the development.*



Within the Clare County Development Plan (2023-2029), the following policies apply to landscape:

*CDP14.1 Development Plan Objective: Landscape Character Assessment*

*It is an objective of Clare County Council: To encourage the utilisation of the Landscape Character Assessment of County Clare and other relevant landscape policy and guidelines and to have regard to them in the management, enhancement and promotion of the landscapes of County Clare.*

*CDP14.2 Development Plan Objective: Settled Landscapes*

*It is an objective of the Development Plan: To permit development in areas designated as 'settled landscapes' that sustain and enhance quality of life and residential amenity and promote economic activity subject to:*

- *Conformity with all other relevant provisions of the Plan and the availability and protection of resources;*
- *Selection of appropriate sites in the first instance within this landscape, together with consideration of the details of siting and design which are directed towards minimising visual impacts;*
- *Regard being given to avoiding intrusions on scenic routes and on ridges or shorelines.*

*Developments in these areas will be required to demonstrate:*

- *That the site has been selected to avoid visually prominent locations;*
- *That the site layouts avail of existing topography and vegetation to reduce visibility from scenic routes, walking trails, water bodies, public amenities and roads;*
- *That design for buildings and structures reduce visual impact through careful choice of forms, finishes and colours, and that any site works seek to reduce visual impact.*

It is considered that the proposed development does not contravene and is in accordance with all of the landscape and visual related policies and objectives of the Clare County Development Plan (2023 – 2029).

#### *11.3.4.3 Clare County Council Wind Energy Strategy 2023 – 2029*

A wind energy strategy for County Clare is included within the current Clare County Development Plan in Volume 6. Map E of the current County Development Plan identifies wind energy designations in County Clare.

**Wind Energy Policies:** Volume 6 of the CCDP 2023-2029 'County Clare Wind Energy Strategy (WES)' contains general and specific objectives for wind energy development. Relevant objectives to landscape and visual are set out below.

***General Objective WES One: Development of Renewable Energy Generation:*** *It is the objective of the Council to support, in principle and in appropriate scales and locations, the development of wind energy resources in County Clare. It is an objective of the Council to ensure the security of energy supply by accommodating the development of wind energy resources in appropriate areas and at appropriate scales within the County.*

***General Objective WES Three: County Partnership Approach****: Clare County Council will seek to promote wind energy in appropriate sites in the County and will work with agencies such as the Clare County Development Board, Clare Enterprise Board, Limerick Clare Energy Agency, Shannon Development, I.D.A and Enterprise Ireland to encourage investment in research and technology associated with wind farms and other renewable energy technology.*

***General Objective WES Six: Infrastructure Development Proposals:*** *Proposals for the development of infrastructure for the production, storage and distribution of electricity through the harnessing of wind energy will be considered in appropriate sites and locations, subject to relevant policy, legislation and environmental considerations.*

Section 4 and Annex B of the current wind energy strategy outlines advice on Landscape Capacity for wind energy developments, based on Landscape Character Areas (LCA's). The wind energy strategy states the following relating to wind energy capacity for the relevant LCAs:

**LCA21 – Loop Head** The majority of this landscape area (including the Proposed Development) is designated 'Open for Consideration' for wind development, with part of this LCA within an 'Acceptable in Principle' area. The overall sensitivity to wind farm development is Medium, with the appropriate scale of wind farms designated as Medium/Large, indicating that the landscape has the capacity to absorb wind farm developments comprising of between 6 - 25 turbines. It is outlined that *'the rolling hills and*

*drumlins in this sparsely settled areas offer capacity to accommodate wind farm development'*.



**LCA21 – Loop Head** (part of Loop Head LCA north of Kilrush close to Moanmore Lower)
This landscape area is designated entirely as 'Acceptable in Principle' for wind development. The overall sensitivity to wind farm development is Medium, with the appropriate scale of wind farms designated as Medium, indicating that the landscape has the capacity to absorb wind farm developments comprising of between 6 to 10 turbines. It is outlined that *'this particular area proposed as 'Acceptable in Principle' relates to the area around the existing wind energy development where the operating wind farm has become an established landuse and contributes to the landscape character. However, the remainder of the Loop Head LCA is considered to be more sensitive to such development due to the open character, spectacular coastline especially in the north and significant natural heritage designations around Loop Head and Poulnasherry Bay'.*

**LCA18 – Shannon Estuary Farmland**
This LCA is designated entirely as 'Open for Consideration' for wind development. The overall sensitivity to wind farm development is Medium, with the appropriate scale of wind farms designated as Small/Medium, indicating that the landscape has the capacity to absorb wind farm developments comprising of between 1 to 10 turbines. It is outlined that *'There is some capacity in the southern part of this LCA for development away from Lough Derg and Killaloe. Small or medium wind farms would be most appropriate. Due to the low-lying nature of the LCA, lower turbine height would be most appropriate'*. Cumulative advice from the 2006 Wind Energy Guidelines for this LCA state; *'a second wind farm may be acceptable only at a very great distance with minimal visual presence'.*

According to the Wind Energy Designation map included within the Wind Energy Strategy, the proposal site is contained entirely within an area identified in the County Clare WES as being 'Open to Consideration' in terms of wind energy development, (See Error! Reference s ource not found.). There are 'Acceptable in Principle' areas a short distance to the north and east and favourable 'Strategic' areas to the northeast. The areas deemed 'Not Normally Permissible' are further west and generally hug the coastline. The relevant 'Open to Consideration' designation is referenced in the following manner:
*'Wind energy Applications in these areas will be evaluated on a case-by-case basis subject to viable wind speeds, environmental resources and constraints and cumulative effects.'*

#### *11.3.4.4 Local Authority Renewable Energy Strategy (LARES)*

In addition to the Wind Energy Strategy included as Volume 5 of the current Clare County Development Plan, a Local Authority Renewable Energy Strategy has been prepared, and is included as Volume 5 of the current County Development Plan. It is stated that *"this Renewable Energy Strategy provides the necessary framework to maximise the County's renewable energy potential and to assist it in becoming an energy secure, low carbon county, to meet renewable energy targets, with the potential to export excess energy".*

Whilst the Proposed Development aligns with the provisions of the Landscape and Renewable Energy Strategy (LARES) for County Clare, it is acknowledged that it offers limited detail specific to wind energy development. In this context, the County Clare Wind Energy Strategy is recognised as the principal policy framework for wind energy development within County Clare and the proposed development is in general accordance with those provisions.

#### *11.3.4.5 Limerick County Development Plan 2022-2028*

Whilst the Development is wholly contained within County Clare, a section of the south-eastern quarter of the Study Area falls within County Limerick, which comes within 13.6km southeast of the Site. The nearest landscape character unit from the Limerick Landscape Character Assessment is a narrow protrusion of the LCA 6 Shannon Coastal Zone. As its name suggests it is principally defined and described in terms of the broad estuarine sections of the Shannon below Limerick City.

Given the notable separation distance and lack of thematic connection to the landscape units within County Clare that contain and flank the Site, it is not considered that the Landscape Character Assessment, landscape designations and / wind energy related policies from the Limerick County Development Plan have any material influence on the Proposed Development. However, considering there is potential for visibility long range views of the Proposed Development from substantial portions of northern Limerick, the CDP scenic designations remain relevant and will be addressed in the visual baseline (see Visual Baseline at **Section 11.3.5**).

#### *11.3.4.6 Kerry County Development Plan 2022-2028*

The nearest portion of County Kerry to the Site is approximately 9km to the south. The Kerry Landscape Character Assessment identifies that the nearest Landscape Character Types are Type B – Pasture with Dry Stone Walls and Hedgebanks and Type C – Pasture with Mature Hedgerows. At a finer scale, the relevant Landscape Character Areas are LCA1 - Beal Hill and Ballybunion and LCA2 - The Shannon Estuary. In terms of visual sensitivity,

these LCAs are assigned Medium-High Visual Sensitivity which are the highest and second highest category of sensitivity out of five classes.



Again, the separation distances and wide, intervening Shannon Estuary, lack of contextual landscape connection to the site render the Kerry CDP landscape and wind energy related policies and designations as not material to this assessment. However, due to potential for mid and long-range visibility from Kerry, the scenic designations will be relevant (see Visual Baseline at **Section 11.3.5**).

#### *11.3.4.7 Scenic Amenity*

Scenic views and routes within 20km of the proposed Development are shown in Error! Reference source not found..

Views relevant to the project, as derived from the Clare, Limerick and Kerry Landscape Character Assessments are outlined in **Table 11.6** below.

**County Clare**

Section 14.5 of the County Clare CDP (2023-2029) relates to scenic views within County Clare. This section of the CDP contains a Landscape Designations Map (Map 14A) which outlines the Designated Scenic Routes within the County. In relation to scenic routes the County Development Plan states:

***CDP13.7 – Development Plan Objective: Scenic Routes***

*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;*
c. *To ensure that appropriate standards of location, siting, design, finishing and landscaping are achieved.*

**County Limerick**

Section 6.4.2 of the County Limerick CDP (2022-2028) relates to views and prospects within County Limerick. In this section of the CDP, 'Map 6.2 – Views and Prospects' indicated the location of the protected views within County Limerick. The County Development Plan states:

***Objective EH O31 - Views and Prospects***

*It is an objective of the Council to:*

a. *Preserve, protect and encourage the enjoyment of views and prospects of special amenity value or special interests and to prevent development, which would block or otherwise interfere with views and/or prospects.*
b. *In areas where scenic views and prospects are listed in the Plan, there will be a presumption against development, except that required to facilitate farming and appropriate tourism and related activities. The development must be appropriately designed so that it can be integrated into the landscape.*

**County Kerry**

Section 11.6.5 of the County Kerry CDP (2022-2028) addresses the councils objectives concerning scenic views and prospects. Additionally, designated views and routes can be identified by map, included as part of Appendix 7 and Volume 4: Maps. In relation to scenic routes the County Development Plan states that it is an objective of the Council to:

***KCDP 11-72***

*Preserve the views and prospects as defined on Maps contained in Volume 4.*

***KCDP 11-73***

*Facilitate the sustainable development of existing and the identification of new Viewing Points along the route of the Wild Atlantic Way in conjunction with Fáilte Ireland, while ensuring the protection of environmental attributes in the area through the implementation of environmental protection objectives, standards and guidelines of this Plan.*

***KCDP 11-74***

*Prohibit developments that have a material effect on views designated in this plan from the public road or greenways towards scenic features and/or public areas.*

**Table 11.6: Schedule of relevant scenic views (within 20km)**

| View number and description/ location | Direction of visual amenity | Distance of view from site | Proposed Development within Field of View and/or indicating visibility in Zone of Theoretical Visibility (ZTV) Maps |
|---|---|---|---|
| **County Clare (C)** | | | |
| *C1 - Coast Road from county boundary (along the Kinvarra Road) to Quilty including the R479 spur to Doolin* | West | 17.4km | Field of View faces away from the Site. Not in ZTV. |

| View number and description/ location | Direction of visual amenity | Distance of view from site | Proposed Development within Field of View and/or indicating visibility in Zone of Theoretical Visibility (ZTV) Maps |
|---|---|---|---|
| *C16 - R487 from Kilfearagh to T-junction before Breaghva* | West/Northwest | 9.5km | The field of view in the CDP does not face the proposal. The ZTV shows partial visibility from this route. |
| *C18 - Along coast road from Carrigaholt to Doonaha* | South | 10km | The field of view in the CDP does not face the proposal, and the ZTV shows intermittent and partial visibility along this route. |
| *C19 - Coast road south east of Cappagh to Carrowdotia South* | South | 3.7km | The field of view in the CDP does not face the proposal. The ZTV shows intermittent and partial visibility along this route, with majority of the route shielded by landform. |
| *C20 - R473 from outside Labasheeda to T-junction before Kiladysert* | South | 17.8km | Field of view faces away from the Site, however likely visibility outside of the field of view, as based on the ZTV. Small portion is in ZTV. |
| *C30 - R487 from junction at Carrounaveehaun along the coast road to Kilkee* | West/Northwest | 10km | The field of view in the CDP does not face the proposal. The ZTV shows intermittent and partial visibility along this route, with a large portion of the route shielded by landform. |
| *C33 - Road running west from Bealaha Bridge as far as its junction with the N67* | West/Northwest | 8.4km | Field of view faces away from the Site. A very small section of this route is within ZTV. |
| *C34 - R487 from the junction with the R488 south to T-junction at Killeenagh* | West/Northwest | 13.5km | Field of view faces away from the Site. A very small section of this route is within ZTV. |
| **County Limerick (L)** (Note: Views are not labelled in Limerick CDP) | | | |
| *L1 - Shannon estuary from Foynes to Glin* | North/Northwest | 12.85km | Yes – the Site will be within the field of view for the Site and will have partial visibility across the intervening landform. |
| **County Kerry (K)** (Note: Views are not labelled in Kerry CDP) | | | |
| *K1 – Unnamed scenic route along the L6010 to Carrig Island* | Northeast | 9.8km | This is a limited and directional view which does not face the Site, but there is likely visibility outside of the field of view, as based on the ZTV. |
| *K2 – Unnamed section of scenic route along the R551* | North | 12.km | Yes – the Site will be within the field of view for the Site and will have partial visibility across the intervening landform. |
| *K3 – Unnamed scenic route along the L1000 to Beale* | North/Northwest | 12.3km | This is a limited and directional view which does not face the Site, but there is likely visibility outside of the field of view, as based on the ZTV. |
| *K4 – Unnamed scenic route along an unnamed local road toward Lisselton* | East | 14.8km | This is a limited and directional view which does not face the Site, but there is likely visibility outside of the main field of view, as based on the ZTV. |

| View number and description/ location | Direction of visual amenity | Distance of view from site | Proposed Development within Field of View and/or indicating visibility in Zone of Theoretical Visibility (ZTV) Maps |
|---|---|---|---|
| *K5 - Unnamed scenic route along the L1010 to Ballylongford* | West | 11.6km | This is a limited and directional view which does not face the Site, but there is likely visibility outside of the main field of view, as based on the ZTV. |
| *K6 – Unnamed scenic route along the N67 from Tarbert Village toward Tarbert Island* | East | 12.9km | This is a limited and directional view which does not face the Site, but there is likely visibility outside of the field of view, as based on the ZTV. |



#### *11.3.4.8 National Parks & Wildlife Service (NPWS)*

Only those NPWS designations within approx. 5km of the Site (i.e. the Central Study Area) are considered worthy of consideration in this section and only to the extent that they highlight areas that are likely to have naturalistic landscape value and sometimes recreational value.

The nearest pNHA is 1.3km west of the Site (i.e. Poulnasherry pNHA). Part of the Tullaher Lough and Bog pNHA is located in the northwest of the Central Study Area 4km from site The nearest SAC & SPA is located less than 2km west of the Site (i.e. Poulnasherry Bay-SAC/SPA). Additionally, the Shannon Estuary SAC/SPA is located more than 3km southwest of the Site.

The nearest SAC/SPA is less than 2km west- red cross above is the dip in the Moyasta at the northern site boundary and yellow shaded area is Poulnasherry bay- which is in the SAC/SPA

### 11.3.5 Visual Baseline

Only those parts of the Study Area that potentially afford views of the Development are of interest to this part of the assessment. Therefore, the first part of the visual baseline is establishing a 'Zone of Theoretical Visibility' and subsequently, identifying important visual receptors from which to base the visual impact assessment.

#### *11.3.5.1 Zone of Theoretical Visibility (ZTV)*

A computer-generated Zone of Theoretical Visibility (ZTV) map, as shown in **Table 11.8**, has been prepared to illustrate where the Development is potentially visible from. The ZTV map is based solely on terrain data (bare ground visibility), and ignores features such as trees, hedges, or buildings, which may screen views. Given the complex vegetation patterns within this landscape, the main value of this form of ZTV mapping is to determine those

parts of the landscape from which the Development will not be visible, due to terrain screening within the 20km Study Area.



The following key points are illustrated by the 'bare-ground' ZTV map refers to:

- The majority of the Study Area will experience theoretical visibility of the Development.
- The visibility of the proposal will vary greatly depending on the intervening landform, which varies across the four quadrants of the Study Area, as previously identified in **Section 11.3.2**.
- Most of the coastal landscape within 10km will experience some degree of theoretical visibility, including receptors within County Kerry on the southern side of the Shannon.
- Visibility is most limited to the east where rugged hill country (containing a high concentration of turbines) results on only sporadic visibility beyond about 5km.
- The settlements of Doonbeg and Coorclare are mostly in ZTV, Kilrush is partially in ZTV as is Kilkee.
- Within the Central Study Area, the overwhelming majority of the N68, the N67 and the R483 are in ZTV, including where the Wild Atlantic Way aligns these routes. Co. Clare Scenic route C19 (as per Table 11.6) is partially in ZTV. Please note that C19 is the only scenic designation within the Central Study Area, while all other scenic designations remain more than 8km from the Site.

The most important point to reiterate in respect of this 'bare-ground' ZTV map is that it is theoretical. Any proposed development, including wind energy developments, has the potential to be screened by intervening or surrounding vegetation (e.g., roadside hedgerows), as well as buildings, walls and embankments in proximity to the viewer, resulting in a much lesser degree of actual visibility. For these reasons, the ZTV represents the very worst-case scenario of what is already an entirely theoretical projection.

### 11.3.6 Views of Recognised Scenic Value

Views of recognised scenic value are primarily indicated within County Development Plans in the context of scenic views/routes designations, but they might also be indicated on touring maps, guidebooks, roadside rest stops or on post cards that represent the area. The relevant scenic designations contained in the current Clare, Limerick and Kerry County Development Plans have been identified above in **Section 11.3.4** 'Landscape Policy Context and Designations'.

All of the scenic routes and views that fall inside the ZTV pattern (see Error! Reference source not found.Error! Reference source not found.) were investigated during fieldwork to

determine whether actual views of the Development might be afforded. Where visibility may occur, a viewpoint has been selected for use in the visual impact appraisal later in this chapter.



**Table 11.7: Rational for selection of scenic designations within the relevant County Development Plans**

| Scenic View or Route Reference: | Relevance to visual impact appraisal | Representative VRP No. herein |
|---|---|---|
| *Clare: 30 - R487 from junction at Carrounaveehaun along the coast road to Kilkee* | County Clare designated scenic view and section of the Wild Atlantic Way. Site is not within identified field of vision, however the scenic proximity and ZTV visibility justifies inclusion for assessment. | VRP19 |
| *Clare: 18 - Along coast road from Carrigaholt to Doonaha* | County Clare designated scenic view and section of the Wild Atlantic Way. Site is not within identified field of vision, however the scenic proximity and ZTV visibility justifies inclusion for assessment. | VRP20 |
| *Clare: 20 - R473 from outside Labasheeda to T-junction before Kiladysert* | County Limerick designated scenic view. Main field of vision faces away from the Site, however likely visibility outside of the field of view, as based on the ZTV. Small portion is in ZTV. | VRP26 |
| *Limerick: Shannon estuary from Foynes to Glin* | County Limerick designated scenic view and section of the Wild Atlantic Way. Site is within the field of vision and in ZTV. | VRP23 |
| *Kerry: Unnamed Scenic Route along the L1000 to Beale* | County Kerry designated scenic view and section of the Wild Atlantic Way. Tourist Location. Site is within the field of vision and in ZTV. | VRP21 |

#### *11.3.6.1 Centres of Population and Houses*

The largest and most populated centre of population in the Study Area is Kilrush, a town of almost 3,000 residents, located 2.4km southeast of the Site. The small town of Kilkee, with less than 1,000 residents, is the second-most notable centre of population within the Study Area, and is located approximately 8.3km west, along the Atlantic Coast.

There is a selection of smaller settlements and service centres in the Wider Study Area, namely the sprawling village of Cooraclare (7.2km to the northeast), Doonbeg village (7.3km to the North) and, in the south, the small town/large village of Tarbert (12.7km to the southeast), Ballylongford and Glin. These are relatively small settlements but are a mix of typologies.

Kilkee and Doonbeg are situated along the Atlantic coast and comprise a mixture of holiday homes, mobile homes and permanent dwellings. In Kilkee, the settlement pattern is centred

around Kilkee Bay beach. In Doonbeg, the settlement pattern is linear, centred along the N67, which is the main road running through the area. Tarbert is a coastal town which is comprised of small clusters of housing centred radially around the N69 road which passes through the town. Cooraclare is situated approximately 7.2km northeast of the proposed Site and has a linear settlement pattern of one-off housing along the R483. Cooraclare and Tarbert service a wider, distributed rural population, while Kilkee and Doonbeg appear to service a more transient visiting population that peaks through the summer months. Kilrush services a wider rural population while sustaining substantial area of residential development in the immediate surrounds and has a stronger sense of a consolidated village.



There are clusters of residential development throughout the Study Area, which are focused around transport or landscape features with limited public services associated with them, being ribbons of residences along roads, valleys and shorelines. Those which directly relate to the Site are Moyasta (3.7km southeast of the Site), and Carnacalla (1km southwest of the Site).

#### *11.3.6.2 Transport Routes*

The principal transport routes passing through the Study Area are the N67, N68 and N69. Both the N68 and N67 run in a general northeast/southwest direction and are respectively 2.8km to the southeast and 1.1km south of the proposed Site at their nearest points. The N67 forms part of the Wild Atlantic Way and runs along the coastline in a general north/south direction through the western half of the Study Area as far as Kilkee, where it meets the R487 which continues south. In Kilkee the N67 veers to the southeast, passing through Kilrush and continuing on past Moneypoint Power Station to Killimer Ferry Terminal. At this point it meets the R486 which continues on toward the east, joining the R473 which proceeds to the east.

The R483 is located 2.4km east of the Site, running northeast/southwest toward Kilrush, where it meets the N67 and N68, which connect the surrounding community to the nearest centres of population and to those beyond the Study Area. The Site is framed by local roads to the north, east and south which hosts a series of rural residential ribbon development.

In the distant southeast of the Study Area, the N69 runs in a general east to west direction from Limerick City before toward Tarbert town where is veers south. The R524 and R551 connect to the N69 in Glin and Tarbert respectively, connecting these towns to the rural

population they serve. The remaining network of roads within the Study Area comprise of local roads, connecting rural housing to the larger, wider road network.



#### *11.3.6.3 Tourism, Recreational and Heritage Features*

The most notable amenity feature contained within the Study Area is that of the 'Wild Atlantic Way' touristic driving route, as shown in **Figure 11.8**, which follows a network of coastal roads along Ireland's west coast from Donegal to Cork. Sections of this route occur throughout the Study Area and generally follow coastal roads. A section of this route follows the N67 national road to the west of the Site from Miltown Malbay toward Kilkee and on to the Loop Head peninsula. The Wild Atlantic Way joins the L2016 local road back toward Kilrush where it joins the N67 which then runs eastward, following along the Shannon Estuary to Kilrush. Sections of the Wild Atlantic Way also follow the coastal roads to the south of the Study Area, along the N67 and R551 toward Ballybunion.

The Wild Atlantic Way passes less than 900m west of the Site near Moyasta. Along the Wild Atlantic Way within the Study Area are the Kilkee Cliffs. These cliffs are a popular tourist attraction on the Loop Head Peninsula, southwest of Kilkee and approximately 13km west of the proposed Development. However, it should be noted that there is no theoretical visibility of the Development from or near the cliffs/clifftops.

There are a number of recreational walkways within the Study Area, most notable of which are the Kilrush Forest Recreational walkway and the Tullaher Loop walk starting/ending in Doonbeg, both of which are relatively small local walkways acting as recreational amenity for the towns in which they are situated. The Kilrush Forest walk is a 3.2km walkway acting as a recreational walkway for residents of Kilrush, adjacent to the Vandeleur Walled Garden tourist attraction. As it is a walkway within a thick woodland, there is no potential for even mid-distance views in the direction of the Site. In addition, Kilrush Golf Club is located to the northeast of the town, while the Kilrush Creek Marina (in southwestern fringe of the Central Study Area) is popular for recreational boaters.

The Tullaher Loop walk is a 16.6km walkway which begins and ends in Doonbeg and utilises local roads, and comes within approx. 3km of the Site, to the northwest. Additionally, the Shannon Way passes through the southern portion of the Study Area and is a 35km country walk between Ballybunion and Tarbert. It begins in the seaside resort at Ballybunion and winds its way to the top of Knockanore. From there the walk passes through bogland and farmland passing through Ballylongford and finishes with the John F. Leslie Woodland Walk. Kilkee and Doonbeg are seaside villages which presumably attracts a notable number of visitors during summer months, as is indicated by the multiple caravan/camping parks and

mobile home parks in and near both towns. Additionally, Doonbeg is home to the Trump International Golf Links (Doonbeg Golf Club), located approximately 10.8km northeast of the Site. This golf resort hosts a variety of national and international visitors annually.



A number of heritage features also occur within the Study Area, the nearest of those being the remnants of the 16th Century Doonbeg Castle, which occurs along the western banks of the Doonbeg River, approximately 7.5km north of the proposed Development. The West Clare Railway (located c.1.3km northwest of the nearest turbine) was a was a steam driven rail service between Ennis and Kilrush and has been since been restored as a tourist attraction and for school tours.

The monastic settlement of Scattery Island is situated within the Shannon estuary some 4.7km to the south of the Site. This can be accessed from Kilrush marina during summer months only, depending on demand. Further south are the remnants of the 15th Century Carrigafoyle Castle, which occurs along the southern banks of the Shannon, just over 10km south of the proposed Development. Lastly, Glin Castle, built in the 18th Century, is located approximately 18km southeast of the Development and is currently operating as a venue for private hire.

The Shannon estuary provides for recreational boating and is also a recognised fishery. It also hosts a number of local coastal walks, which occur on both the northern and southern banks of the river.

#### *11.3.6.4 Identification of Viewshed Reference Points as a Basis for Assessment*

The results of the ZTV analysis provide a basis for the selection of Viewshed Reference Points (VRP's), which are the locations used to study the landscape and visual impact of the Development in detail. It is not warranted to include each and every location that provides a view of this Development as this would result in an unwieldy report and make it extremely difficult to draw out the key effects arising from the Project. Instead, a variety of receptor locations was selected that are likely to provide views of the proposed wind farm from different distances, different angles and different contexts (in accordance with relevant guidance).

The visual impact of a proposed Development is assessed using up to 6 categories of receptor type as listed below:

- Key Views (from features of national or international importance);
- Designated Scenic Routes and Views;

- Local Community views;
- Centres of Population;
- Major Routes; and
- Amenity and heritage features.



Where a VRP might have been initially selected for more than one reason it will be assessed according to the primary criterion for which it was chosen. The characteristics of each receptor type vary as does the way in which the view is experienced. These are described below.

**Key Views**

These VRPs are at features or locations that are significant at the national or even international level, typically in terms of heritage, recreation or tourism. They are locations that attract a significant number of viewers who are likely to be in a reflective or recreational frame of mind, possibly increasing their appreciation of the landscape around them. The location of this receptor type is usually quite specific.

**Designated Scenic Routes and Views**

Due to their identification in the County Development Plan this type of VRP location represents a general policy consensus on locations of high scenic value within the Study Area. These are commonly elevated, long distance, panoramic views and may or may not be mapped from precise locations. They are more likely to be experienced by static viewers who seek out or stop to take in such vistas.

**Local Community Views**

This type of VRP represents those people who live and/or work in the locality of the Development, usually within a 5km radius of the Site. Although the VRPs are generally located on local level roads, they also represent similar views that may be available from adjacent houses. The precise location of this VRP type is not critical; however, clear elevated views are preferred, particularly when closely associated with a cluster of houses and representing their primary views. Coverage of a range of viewing angles using several VRPs is necessary in order to sample the spectrum of views that would be available from surrounding dwellings.

**Centres of Population**

VRPs are selected at centres of population primarily due to the number of viewers that are likely to experience that view. The relevance of the settlement is based on the significance

of its size in terms of the Study Area and/or its proximity to the Site. The VRP may be selected from any location within the public domain that provides a clear view either within the settlement or in close proximity to it.



**Major Routes**

These include national and regional level roads and rail lines and are relevant VRP locations due to the number of viewers potentially impacted by the Development. The precise location of this category of VRP is not critical and might be chosen anywhere along the route that provides clear views towards the Site, but with a preference towards close and/or elevated views. Major routes typically provide views experienced whilst in motion and these may be fleeting and intermittent depending on screening by intervening vegetation or buildings.

**Tourism, Recreational and Heritage Features**

These views are often one and the same given that heritage locations can be important tourist and visitor destinations and amenity areas or walking routes are commonly designed to incorporate heritage features. Such locations or routes tend to be sensitive to development within the landscape as viewers are likely to be in a receptive frame of mind with respect to the landscape around them. The sensitivity of this type of visual receptor is strongly related to the number of visitors they might attract and, in the case of heritage features, whether these are discerning experts or lay tourists. Sensitivity is also heavily influenced by the experience of the viewer at a heritage site as distinct from simply the view of it. This is a complex phenomenon that is likely to be different for every site. Experiential considerations might relate to the sequential approach to a castle from the car park or the view from a hilltop monument reached after a demanding climb. It might also relate to the influence of contemporary features within a key view and whether these detract from a sense of past times. It must also be noted that the sensitivity rating attributed to a heritage feature for the purposes of a landscape and visual assessment is not synonymous with its importance to the Archaeological or Architectural Heritage record.

The Viewshed Reference Points selected in this instance are set out in **Table 11.8** below and shown on the VP selection Map in the photomontage booklet. They have all been selected on the basis of relevant guidance and best practice.

**Table 11.8: Outline description of selected Viewshed Reference Points (See Viewpoint Location Map – Figure 11.9)**



| VRP No. | Location | Distance to Site (km) | Direction of view |
|---|---|---|---|
| **VP1** | Residences on northern outskirts of Kilrush | 1.8km | NE |
| **VP2** | Residences by Corraclare village | 7.3km | S/SW |
| **VP3** | Residences on the R483 at Ballykett | 2.7km | W |
| **VP4** | Local residences at Moyadda along N68 | 4.8km | NW |
| **VP5** | Local road at Moanmore Upper | 0.7km | S |
| **VP6** | Local road near Knockerra Lower | 7.2km | W/NW |
| **VP7** | Residences on local road at Ballykett | 3.2km | W/NW |
| **VP8** | Kilrush Rugby Club entrance at Moanmore South | 0.6km | S/SW |
| **VP9** | Wild Atlantic Way along N67 at Moyasta | 1.0km | E |
| **VP10** | Tullaher Loop Walk along local roads | 3.5km | S |
| **VP11** | Wild Atlantic Way along N67 at Killimer | 8.2km | NW |
| **VP12** | Residences on N68 | 9.4km | W/SW |
| **VP13** | Local road near Carabane | N/A | W/NW |
| **VP14** | Dismantled South Clare Rail line near Moanmore | 1.9km | S |
| **VP15** | Dismantled South Clare Rail line near Moynasta | 1.5km | SE |
| **VP16** | Wild Atlantic Way near Poulnasherry Bay | 4.9km | E/SE |
| **VP17** | Doonbeg village | 7.5km | S |
| **VP18** | Residences along N67 and Wild Atlantic Way | 12km | SW |
| **VP19** | Wild Atlantic Way at Kilkee Bay | 9.6km | W |
| **VP20** | Designated Co. Clare scenic view and Wild Atlantic Way at Doonaha | 9.7km | E/NE |
| **VP21** | Co. Kerry designated scenic route and Wild Atlantic Way | 12.3km | N/NE |
| **VP22** | Wild Atlantic Way and Shannon Way at Ballylongford | 12.6km | N |
| **VP23** | Wild Atlantic Way & Glin Heritage Trail | 17.5km | NW |
| **VP24** | N68 in east of Study Area at Ballybuneen | 19.2km | W/SW |
| **VP25** | Regional road near Knockaneden | 15.5km | SW |
| **VP26** | Designated Co. Clare scenic view near Labasheeda | N/A | W/NW |
| **VP27** | Residences on local road at Carnaun | 1.0km | N/NE |

### 11.3.7 Cumulative Baseline

The SNH Guidelines relating to the Cumulative Effects of Wind Farms (2021) and GLVIA - 2013 identify that cumulative effects on visual amenity consist of combined visibility and sequential effects. The same categories have also been subsequently adopted in the Landscape Institute's 2013 revision of the Landscape and Visual Impact Assessment Guidelines:

*"Combined visibility occurs where the observer is able to see two or more developments from one viewpoint. Combined visibility may either be in combination (where several windfarms are within the observer's arc of vision at the same time) or in succession (where the observer has to turn to see the various windfarms).*

*Sequential effects occur when the observer has to move to another viewpoint to see different developments. The occurrence of sequential effects may range from frequently sequential (the features appear regularly and with short time lapses between, depending on speed of travel and distance between the viewpoints) to occasionally sequential (long time lapses between appearances, because the observer is moving very slowly and / or there are large distances between the viewpoints.)"*

Based on guidance contained within the SNH Guidelines relating to the Cumulative Effects of Wind Farms (2005) and the DoEHLG Wind Energy Guidelines (2006) and the draft Wind Energy Guidelines 2019), cumulative effects can be experienced in a variety of ways.

In terms of landscape character, additional wind energy developments might contribute to an increasing sense of proliferation. A new wind farm might also contribute to a sense of being surrounded by turbines with little relief from the view of them. The term 'skylining' is used in the SNH Guidelines to describe the effect:

*"Where an existing windfarm is already prominent on a skyline the introduction of additional structures along the horizon may result in development that is proportionally dominant. The proportion of developed to non-developed skyline is therefore an important landscape consideration."*

In terms of visual amenity, there is a range of ways in which an additional wind farm might generate visual conflict and disharmony in relation to other wind energy developments. Some of the most common include visual tension caused by disparate extent, scale or layout of neighbouring developments. A sense of visual ambivalence might also be caused by adjacent developments traversing different landscape types. Turbines from a proposed wind farm that are seen stacked in perspective against the turbines of nearer or further developments tend to cause visual clutter and confusion. Such effects are exacerbated when, for example, the more distant turbines are larger than the nearer ones and the sense of distance is distorted. **Table 11.9** below provides criteria for assessing the magnitude of cumulative effects.

**Table 11.9: Outline Magnitude of Cumulative Impact**



| Magnitude of Impact | Description |
|---|---|
| Very High | - The proposed wind farm will strongly contribute to wind energy development being the defining element of the surrounding landscape.<br>- It will strongly contribute to a sense of wind farm proliferation and being surrounded by wind energy development.<br>- Strongly adverse visual effects will be generated by the proposed turbines in relation to other turbines. |
| High | - The proposed wind farm will contribute significantly to wind energy development being a defining element of the surrounding landscape.<br>- It will significantly contribute to a sense of wind farm proliferation and being surrounded by wind energy development.<br>- Significant adverse visual effects will be generated by the proposed turbines in relation to other turbines. |
| Medium | - The proposed wind farm will contribute to wind energy development being a characteristic element of the surrounding landscape.<br>- It will contribute to a sense of wind farm accumulation and dissemination within the surrounding landscape.<br>- Adverse visual effects might be generated by the proposed turbines in relation to other turbines. |
| Low | - The proposed wind farm will be one of only a few wind farms in the surrounding area and will be viewed in isolation from most receptors.<br>- It might contribute to wind farm development becoming a familiar feature within the surrounding landscape.<br>- The design characteristics of the proposed wind farm accord with other schemes within the surrounding landscape and adverse visual effects are not likely to occur in relation to these. |
| Negligible | - The proposed wind farm will most often be viewed in isolation or occasionally in conjunction with other distant wind energy developments.<br>- Wind energy development will remain an uncommon landscape feature in the surrounding landscape.<br>- No adverse visual effects will be generated by the proposed turbines in relation to other turbines. |

There are 16 operational, permitted, proposed wind farms for which planning applications are already submitted for determination, within 20km of the Site. **Figure 2.1** shows the location of proposed, permitted and operational wind farms within a 20km radius of the proposed turbines and **Table 2.1** below provides further information on these wind farms. The nearest operational wind farm is Moanmore wind farm which is located approximately 1.7km to the northeast of the Site.

**Table 11.10: Cumulative Windfarms within the Study Area (as of April 2025)**

| Wind Farm | Status | No. of Turbines | Approximate Distance to the Site Boundary | Direction from the Development |
|---|---|---|---|---|
| Ballykett | In-Planning | 4 | c. 0.96km | Northeast |
| Moanmore | Operational | 7 | c. 1.7km | Northeast |
| Tullabrack | Operational | 6 | c. 2.16km | East |
| Beale Hill | Operational | 6 | c. 12.97km | Southwest |
| Cahermurphy | Operational | 3 | c. 15.64km | Northeast |
| Carrownaweelaun | Operational | 2 | c. 14.12km | West |
| Crossmore | Consented | 7 | c. 15.19km | East |
| Curraghgerrig | Operational | 2 | c. 12.74m | Southwest |
| Glenmore | Operational | 6 | c. 18.31km | Northeast |
| Kiltumper | Operational | 2 | c. 15.96km | Northeast |
| Lahra | Operational | 2 | c. 14.22km | South |
| Leanamore | Operational | 9 | c. 12.71km | Southeast |
| Moneypoint | Operational | 5 | c. 7.36km | South |
| Shronowen | Proposed | 12 | c. 16.46km | South |
| Tullahennel South | Operational | 9 | c. 14.08km | South |
| Tullahennel North | Operational | 2 | c. 14.28km | South |



## 11.4 ASSESSMENT OF POTENTIAL EFFECTS

### 11.4.1 Do Nothing Effects

In this instance, the do-nothing effect would be that the receiving landscape stays in the same or similar condition as it currently is.

### 11.4.2 Landscape Effects

Landscape effects are assessed on the basis landscape sensitivity weighed against the magnitude of physical landscape effects within the Site and effects on landscape character within the wider landscape setting. This wider setting is considered in respect of the immediately surrounding landscape (<5 km) as well as the broader scale of the Study Area (5-20km).

#### *11.4.2.1 Landscape Character, Value and Sensitivity*

Landscape value and sensitivity are considered in relation to a number of factors that accord with the Guidelines for Landscape and Visual Impact Assessment 2013, which are set out below and discussed relative to the proposed project Site and Wider Study Area.

***Central Study Area (approx. <5km)***

In broad brushstrokes, the Central Study Area is a low-lying, highly utilitarian and anthropocentric domain, that is relatively densely settled for a rural area of its size in the

west of Ireland. It adheres to neither the characteristics or identity associated with east Clare, nor of the coastal, dramatic, windswept character of the more 'iconic' west Clare, further west. This is borne out by land use, which is overwhelmingly centred on productive, economically progressive values rather than any compelling naturalistic or aesthetic values. This takes the form of intensively managed agricultural practises, followed by commercial conifer plantations and segments of cutaway/exploited bogland, as well as two wind farms, open cast quarrying and human settlement, primarily in the form of the town of Kilrush.



Of the multiple scenic designations across the county, only one enters within the Central Study Area (C19, as addressed in **Table 11.6**, which comes within 3.7km southeast of the Site). While the Wild Atlantic Way enters within the Central Study Area, it does so as the only viable means to connect coastal roads to the south and the west, needing to briefly angle northwards to get around/north of Poulnasherry Bay, before returning to the southern coastline of Loop Head. It is worth noting that where it does enter the Central Study Area, it does so along the N67, one of two busy national roads in the Central Study Area.

The modest-moderate landscape integrity and condition is reflected in the planning policy context associated with the Central Study Area, as previously set out in **Section 11.3.4.1**. Notably, in that regard, the Central Study Area is overwhelmingly deemed to be a 'Settled landscapes – areas where people live and work,' by Clare County Council. Also, as mentioned in **Section 11.3.4.3** in the County Clare Wind Energy Strategy the site is contained within an area deemed to be 'Open to Consideration' for Wind Energy Development. Furthermore, there are no NPWS designations within 4km of the Site. All of these elements do not indicate a landscape character, value or sensitivity that is particularly rare or sensitive.

On balance of these factors, the Central Study Area is deemed to have a '**Medium-low'** landscape sensitivity.

***Wider Study Area (Approx. >5km)***

The Wider Study Area is considerably more diverse, in terms of landscape sensitivity, integrity and value, compared to those areas within 5km of the Site. It should be noted that wind energy is present as a visible, but sub-dominant, element of the landscape across the Wider Study Area, with 12 operational wind farms at present.

For three of the four quadrants previously outlined in **Section 11.3.3**, the landscape character is hugely influenced by the coastline within them, be it the Shannon estuary or

the Atlantic Ocean. The northeast quadrant is the exception to this, in that it chiefly possesses landscape characteristics very similar to those set out above for the central Study Area. However, it does contain some small loughs numerous Natural Heritage Areas (NHAs) and undulating terrain exceeding 200m AOD, albeit terrain almost universally cloaked in commercial conifer plantations.



Characterised by the Shannon Estuary, the southeast and southwest quadrants possess a strong degree of naturalistic and aesthetic quality, although this tends to decrease the more one moves from the coastline. Approx. 12-20km from the Site (i.e. within northern sections of Counties Kerry and Limerick), in these two quadrants the inland landscape character again takes on many similar characteristics of the northeast quadrants. In addition, it possesses some substantial and highly visible energy infrastructure (i.e. the Tarbert and Moneypoint power stations) and a busy commercial shipping lane. Be that as it may, it is a landscape with multiple scenic designations and recreational facilities, some of which (e.g., the Wild Atlantic Way) are internationally renowned.

The fourth and final quadrant (i.e., the northwest quadrant) is primarily characterised by the highly scenic and iconoclastic West Clare Atlantic seaboard, a domain of international regard in its scenic, naturalistic and recreational strength.

On balance of these factors, the Wider Study Area is deemed to have an overall '**High-medium'** landscape sensitivity.

### 11.4.3 Magnitude of Landscape Effect

The proposed turbines, as well as the ancillary development, such as access and circulation roads, areas for the proposed Electrical Substation and hard standing for the proposed turbines, are certain to impact the physical landscape of the proposed development site, as well as its character. However, the only envisaged landscape impact upon the Study Area (i.e., outside the Site) will be the likely impact upon landscape character from the proposed turbines.

#### *11.4.3.1 Construction-stage Effects on the Physical Landscape*

It is considered that the Development will have a modest physical impact on the landscape within the Site, because none of the proposed features have an extensive physical 'footprint'.

The topography and land cover of the Site will remain largely unaltered. Aside from the 3 no. proposed turbines, construction will be limited to an Electrical Substation and Control Building, internal access tracks, Turbine Hardstands and a Temporary Construction Compound.

Excavations will tie into existing ground levels and will be the minimum required to ensure efficient working. Any temporary excavations or stockpiles of material will be re-graded to marry into existing site levels and reseeded appropriately

All works associated with the connection of the electrical substation to the national electricity grid will be with a Grid Connection to Tullabrack 110kV substation will be underground. The physical impact of this will equate to a modest, relatively narrow trench that will then be fully infilled to pre-existing surface levels.

Site activity will be at its greatest during the construction phase due to the operation of machinery on site and movement of heavy vehicles to and from Site. This phase will have a more notable and apparent impact on the character of the Site and cable routes than the operational phase. There will be some long-term/permanent effects on the physical landscape in the form of Turbine Foundations and hardstands, the existing/upgraded access tracks and a substation, but only the on-site substation and mast are likely to remain in perpetuity as part of the national grid network.

As the construction stage of the Development is estimated to take approximately 10 months, construction-stage effects are considered short-term, by the EPA Guidance terms (i.e., effects lasting from one to seven years).

In summary, the magnitude of construction-stage effects on the physical landscape of the Site are deemed to be High-medium, with a Negative quality of effect and short-term in duration.

As outlined in **Section 11.2**, the significance of landscape effects is a function of landscape sensitivity weighed against the magnitude of the landscape impact. This is established on the basis of the significance graph (**Table 11.3**) in conjunction with professional judgement. Accordingly, when combined with a Medium-low landscape sensitivity of the receiving environment, of the Central Study Area, the Development is deemed to have a **Moderate** significance of construction-stage effects on the physical landscape. These will have a Negative quality of effect and be short-term in duration.

Thus, the Proposed Development is not considered to generate any significant construction stage effects.



#### *11.4.3.2 Operational & Decommissioning Stage Effects on Landscape Character*

For most commercial wind energy developments, the greatest potential for landscape effects to occur is as a result of the change in character of the immediate area, due to the introduction of tall structures with moving components. Thus, in some instances, wind turbines that may not have been a characteristic feature of the area become a new defining element of that landscape character.

In this instance, wind turbines are not just a familiar feature of the central and Wider Study Area, but two such wind farms, totalling 13 turbines between them, are located within approx. 2km northeast of the Site, while in the Wider Study Area there are 12 operational wind farms at present. Thus, existing wind turbines contribute in a palpable and apparent manner to the landscape character of the Study Area. The existing wind farms ensure that the Development will not be a new or unfamiliar feature of its wider landscape setting. The effect, therefore, is one of intensification of an established land use type in this landscape and for wind energy development to become gradually more of a characteristic feature of this predominantly rural landscape.

In terms of scale and function, the Development is well assimilated within the context of the Central Study Area, which consists of a range of productive rural land uses. Although it represents a higher level of built development than currently exists on the Site, it will not notably detract from its productive and utilitarian elevated rural character.

A key consideration in this instance relates to the scale and extent of the proposed wind farm relative to the County Clare Wind Energy strategy, which identifies that the appropriate size of Wind Farms in LCA 21 Loop Head is 'medium to large scale development (6-25 turbines) in this area. It is a relatively unique scenario within the country for a Planning Authority to direct a minimum scale of development within a particular area, less so a maximum scale. Whilst the proposed development with three turbines is below the lower threshold identified in this area (6 turbines), it is in close proximity to the existing Moanmore and Tullabrack wind farms (and the four turbine Ballykett Wind Farm which is currently in planning), which together total 17 turbines. It can, therefore, be considered as part of this general cluster of developments that will total 20 turbines if the proposed development is realised.

Patterns of wind energy development often emerge over time based on a number of factors including planning policy and physical constraints. For example, the Bellacorrick basin in northwest County Mayo has evolved as an extensive and near continuous array of large-scale developments of tall turbines in a vast inland bog context. In the area around Dunmanway in County Cork, small clusters of 4-5 turbines emerged on the surrounding hilltops as a distinct pattern of development that appear planned and not ad hoc. In the case of the proposed Moanmore Lower Wind Farm, the nearest surrounding developments in the same landscape context are Moanmore (7 turbines) and Tullabrack (6 turbines). Therefore, the proposal for three turbines in Moanmore Lower does not unduly deviate from the established pattern of medium / small wind farms in the area and is therefore considered reasonable.

The other key consideration in terms of assimilation with the surrounding context, and particularly existing wind energy development in the vicinity, is that of turbine height. At 150m tip height, the proposed turbines are taller than the existing turbines in the near vicinity (Moanmore 100m TH and Tullabrack 119m TH, but this will not generate an undue scale conflict. From experience of having frequently compared tip heights of neighbouring developments over the past two decades, Macro Works have found that where a difference of less than c. 20% is involved, it is difficult to discern even when schemes are immediately adjacent as the eye tends to equate any variance to relative ground level or viewing distance. In relation to the latter, the increased setback of the proposed turbines from surrounding residences is in line with the requirements of the Draft Revised Wind Energy Development Guidelines (2019) of 4 X tip height. This equates to a setback of 600m for the proposed 150m tip height turbines, which is 100m greater than required under the current 2006 guidelines. When viewed from the nearest surrounding residences (and therefore roads), the perceived height of the proposed turbines will be very similar to the existing turbines in the area due to this greater setback distance (see Plate 11.3 below). The developments are also separated by sufficient distance that the respective turbines are not presented adjacent to each other, where scale conflict from a direct height comparison could be made.

Overall, it is not considered that the proposed turbines are over scaled in terms of the receiving landscape setting or existing turbines within the local area. Indeed, 150m tip height turbines are modest by current standards, where most current applications for onshore wind farms involve turbines of 170 – 200m tip heights. It is also a notable current trend that permitted wind farms are subject of amendment applications to increase turbine heights particularly in the context of larger rotor diameters. These trends reflect that this is

an ever-evolving industry where it is also very likely that within the short to medium term, that the existing wind farms in the area are subject of repowering applications to replace their current turbines with taller, more productive turbines that may be taller again than the proposed Ballykett Turbines. This scenario is beginning to emerge throughout the country as pioneering wind farm developments reach 20+ years of operation.

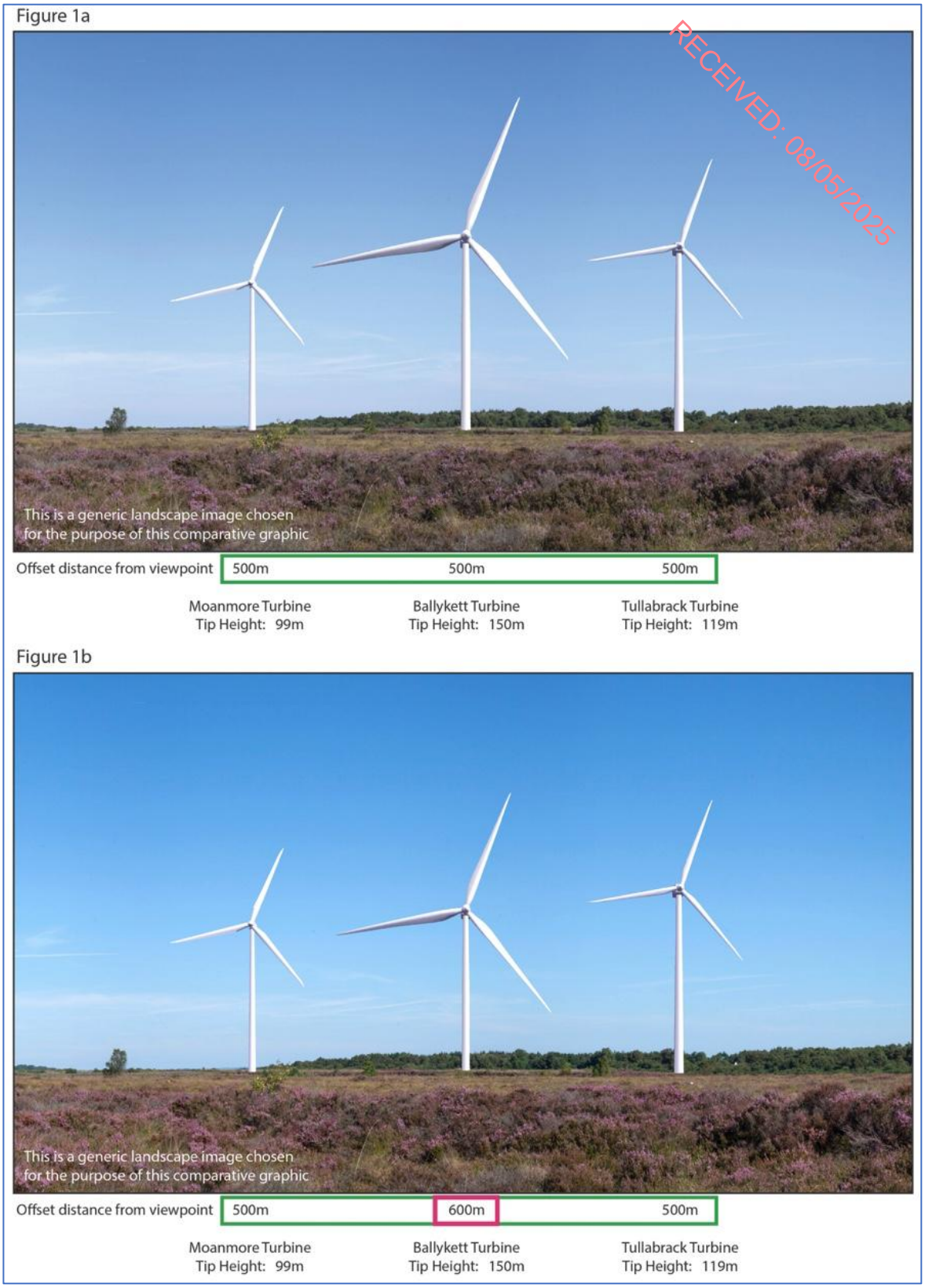


**Plate 11.3: Turbine height / setback distance comparison with nearby turbines**

It is important to note that in terms of duration, with the exception of the proposed Electrical Substation and access tracks, the Development represents a long term, but not permanent,

impact on the landscape and it is reversible. The expected operational lifespan of the project is 40 years. Within 2-3 years of Decommissioning, there would be little evidence that a wind farm ever existed on the Site.



The Decommissioning phase will have similar temporary effects as the construction phase, with the movement of large turbine components away from the Development. There may be a minor loss of roadside and trackside vegetation that has grown during the operation phase of the Development, but this will be reinstated upon completion of Decommissioning. Areas of hard standing that are of no further use will be reinstated and reseeded to blend with the prevailing land cover in the direct vicinity at that time. As 3 No. turbines are being proposed for this Development, such scale of development can be assimilated into this landscape context without undue conflicts of scale with underlying landform and land use patterns. This is further underlined by the scale of the proposed turbines: at 150m tip height, they will be approx. three-quarters of the height of many onshore turbines currently proposed within Ireland.

On balance of the reasons outlined above, the magnitude of operational & Decommissioning-stage effects on Landscape Character are deemed to be Medium-low within the Central Study Area, reducing at increasing distances beyond this threshold as the wind farm becomes a proportionally smaller feature of a wider landscape context.

As outlined in **Section 11.4.2** above, the significance of landscape effects is a function of landscape sensitivity weighed against the magnitude of the landscape impact. This is established on the basis of the significance graph (**Table 11.3**) in conjunction with professional judgement.

Accordingly, the significance of operational and decommissioning stage effects on landscape character is deemed to be **Moderate-slight** within the Central Study Area, which will have a Negative Quality of effect and be long-term in duration. However, the significance will reduce to Slight and Imperceptible at increasing distances thereafter, as the Development becomes a progressively smaller component of the wider landscape fabric.

Thus, the Development is not considered to generate any significant 'Operational-Decommissioning' stage effects.

### 11.4.4 Visual Effects



In the interests of brevity and so that this chapter remains focussed on the outcome of the visual assessment (rather than a full documentation of it), the visual impact assessment at each of the 26 selected representative viewpoint locations has been placed into **Appendix 11.1**. This section should be read in conjunction with both **Appendix 11.1** and the associated photomontage set contained in a separate booklet accompanying the EIAR. A summary table is provided below, which collates the assessment of visual effects (**Table 11.11** below). A discussion of the results is provided thereafter.

**Table 11.11: Summary of Visual Impact Assessment at Representative Viewpoint Locations (refer to Technical Appendix 11.1)**

| Visual Impact | | | | |
|---|---|---|---|---|
| **VP No.** | **Distance to nearest turbine** | **Visual Receptor Sensitivity** | **Magnitude of Visual Impact** | **Significance / Quality / Duration of Impact** |
| **VP1** | 1.8km (T3) | **Medium low** | Medium-Low | **Moderate-Slight/ Negative/ Long-term** |
| **VP2** | 7.3km (T1) | **Medium low** | Medium-low | **Moderate-slight / Negative/ Long-term** |
| **VP3** | 2.7km (T3) | **Medium-low** | Low | **Slight / Negative/ Long-term** |
| **VP4** | 4.8km (T3) | **Medium-low** | Low | **Slight/ Negative / Long-term** |
| **VP5** | 0.7km (T1) | **Medium-low** | High | **Moderate/ Negative/ Long-term** |
| **VP6** | 7.2km (T3) | **Medium-low** | Low-negligible | **Slight-imperceptible/ Negative/ Long-term** |
| **VP7** | 3.2km (T3) | **Medium-low** | Medium-low | **Moderate-slight/ Negative/ Long-term** |
| **VP8** | 0.6km (T1) | **Medium-low** | High | **Moderate/ Negative/ Long-term** |
| **VP9** | 1.0km (T2) | **Medium** | High-medium | **Moderate/ Negative/ Long-term** |
| **VP10** | 3.5km (T1) | **Medium-low** | Medium-Low | **Moderate-slight/ Negative/ Long-term** |
| **VP11** | 8.2km (T3) | **Medium** | Low- Negligible | **Slight- Imperceptible/ Negative/ Long-term** |
| **VP12** | 9.4km (T1) | **High-medium** | Negligible | **Imperceptible/ Neutral/ Long-term** |
| **VP13** | N/A (T3) | **Medium-low** | Negligible | **Imperceptible/ Neutral/ Long-term** |
| **VP14** | 1.9km (T1) | **Medium-low** | Medium | **Moderate-slight/ Negative/ Long-term** |
| **VP15** | 1.5km (T2) | **Medium** | Medium | **Moderate/ Negative / Long-term** |
| **VP16** | 4.9km (T2) | **Medium** | Medium-Low | **Moderate-slight/ Negative/ Long-term** |
| **VP17** | 7.5km (T1) | **Medium** | Negligible | **Imperceptible/ Neutral/ Long-term** |

| Visual Impact | | | | |
|---|---|---|---|---|
| **VP No.** | **Distance to nearest turbine** | **Visual Receptor Sensitivity** | **Magnitude of Visual Impact** | **Significance / Quality / Duration of Impact** |
| **VP18** | 12.0km (T1) | **Medium** | Negligible | **Imperceptible/ Neutral/ Long-term** |
| **VP19** | 9.6km (T2) | **Medium** | Low | **Slight / Negative/ Long-term** |
| **VP20** | 9.7km (T2) | **Medium** | Low-Negligible | **Slight-Imperceptible/ Negative/ Long-term** |
| **VP21** | 12.3km (T2) | **High-medium** | Low | **Moderate-slight/Negative/ Long-term** |
| **VP22** | 12.6km (T3) | **Medium-low** | Low-Negligible | **Slight-Imperceptible/ Negative/ Long-term** |
| **VP23** | 19.2km (T1) | **High-medium** | Low-Negligible | **Slight-Imperceptible/ Negative/ Long-term** |
| **VP24** | 19.2km (T1) | **Medium-low** | Negligible | **Imperceptible/Neutral/ Long-term** |
| **VP25** | 15.5km (T1) | **Medium-low** | Low-negligible | **Slight-imperceptible/Negative/ Long-term** |
| **VP26** | N/A (T3) | **Medium** | Negligible | **Imperceptible/ Neutral/ Long-term** |
| **VP27** | 1.0km (T3) | **Medium-low** | High-medium | **Moderate/Negative/ Long-term** |



### 11.4.5 Visual Impact summary by receptor type

The visual effects will be summarised below by receptor type.

#### *11.4.5.1 Visual effects on Local Community Views*

Local Community views are considered to be those experienced by those people who live, work and move around the area within approximately 5km of the Site (i.e., the Central Study Area). These are generally the people that are most likely to have their visual amenity affected by a wind energy proposal due to proximity to the turbines, a greater potential to view turbines in various directions, or having turbines as a familiar feature of their daily views. Be that as it may, it is worth reiterating that wind turbines in the Central Study Area are already a common/daily feature of local community views. Owing to proximity, local community views understandably tend to have the highest likely visual impact significance of all receptors within the Study Area.

In total, of the 27 viewpoints assessed as part of this LVIA, 12 are from within approximately 5km of the Site. Five of these 12 viewpoints experienced the highest likely visual impact recorded for the Development; that of 'Moderate' Visual Impact Significance. This is primarily owing to the proximity of these four receptors to the proposed turbines, but also the lack of substantial roadside hedgerows or trees at those sections. A further five viewpoints recorded a Moderate-slight visual impact significance, for similar reasons, while

tending to be generally 2-5km from the Site, with the remaining two viewpoints in the Central Study Area likely to experience either Slight or Imperceptible visual impact significance. Due to proximity, this receptor group has the most potential to experience a sense of overbearing from surrounding wind turbines. However, given that the 4 X tip height set back required by the 2019 Draft Revised Wind Energy Development Guidelines (600m in this case) has been adhered to, the turbines from the proposed development will not appear overbearing and this is reflected in the visual impact assessment judgements. The setback distance also ensures that they will appear similar to other existing wind turbines in the vicinity without a sense of ambiguity from scale conflict / confusion (see Plate 11.3).



Thus, it is not considered that the proposed wind farm Development will generate significant visual effects in respect of local community receptors.

#### *11.4.5.2 Visual effects on designated views*

As previously set out in **Section 11.3.5.1**, above, all of the scenic routes and views that fall inside the ZTV pattern were investigated during fieldwork to determine whether actual views of the Development might be afforded. Where visibility may occur, a viewpoint has been selected for use in the visual impact appraisal. This resulted in three such viewpoints from those designated views. Of these three, the highest likely visual impact related to VP21 which was deemed to have a 'Slight' significance. VP21 affords an elevated view of the proposed turbines across the Shannon Estuary in the near distance. The proposed turbines present in a clear and comprehensive manner and are viewed within the context of several other existing wind farms. Although these turbines will contribute to the intensification of wind energy development, they do not draw from the visual amenity associated with this view of the Shannon Estuary. In VP23 the blade sets of the proposed turbines present faintly in the distance on the horizon line. The proposed turbines are barely discernible due to the distance and presence of the Money Point PowerStation which is of far more prominent scale. Thus, the likely visual impact is deemed to have a 'Slight-imperceptible' significance. Finally, in VP26, the proposed turbines are completely screened by the intervening landform and therefore has a likely visual impact significance of 'Imperceptible'. This aligns with the objective KCDP11-74, as the proposed Development will not have a material effect on the designated views within the Kerry CDP. This is consistent with Objective KCDP11-74, as the Proposed Development will not have any likely significant effect on the designated views identified within the Kerry County Development Plan.

Thus, it is not considered that the proposed wind farm development will generate significant visual effects in respect of designated views.

#### *11.4.5.3 Visual effects on centres of population*



Kilrush is the only settlement within the Central Study Area, however, the hamlet of Moyasta occurs northwest of the proposed development. Moyasta falls entirely within ZTV and sections of Kilrush falls within the ZTV and resulted in selected viewpoints. Moyasta (i.e. VP15) recorded the higher of the two likely visual impact significance: 'Moderate' Kilrush (VP1), meanwhile, recorded a likely visual impact significance of 'Moderate-Slight.'

Although there are multiple settlements within the Wider Study Area, some did not fall within the ZTV pattern (indicating no potential visibility). Those that did fall within the ZTV pattern and were selected for viewpoints include the County Clare settlements of Doonbeg (VP17),Kilkee (VP19) and Coorclare (VP2) of which were deemed to have a likely visual impact significance of 'Imperceptible', 'Slight-imperceptible' and 'Moderate-slight'. The settlement of Cooraclare affords a clear elevated view of the proposed wind farm on the horizon line alongside a series of other wind developments. The north Co. Kerry settlement of Ballylongford (VP22), also recorded a likely visual impact significance of 'Slight-imperceptible'.

Thus, it is not considered that the proposed wind farm Development will generate significant visual effects in respect of centres of population.

#### *11.4.5.4 Visual effects on major routes*

As previously set out in **Section 11.3.5.**, there are multiple major routes within the Study Area. In total, of the 27 viewpoints assessed as part of this LVIA, 11 are from major routes, covering both regional and national roads.

Of these, the highest likely visual impact experienced is 'Moderate' (VP15 and VP9) along the N67. This is primarily owing to the proximity of these two receptors to the proposed turbines (i.e., all less than 1.5km distance), but also the lack of substantial roadside hedgerows or trees at those sections. Of the remaining nine viewpoints along major routes that were also assessed were a further three viewpoints from the N67, three viewpoints from the N68, one from the N69, as well as one from the R483, one from the R552 and one from the R473. In all of these viewpoints, the likely visual effects experienced ranges from 'Imperceptible (in four viewpoints) to 'slight-imperceptible' (in two viewpoints) to 'Slight' (in one viewpoint) and 'Moderate-slight in one case.

Thus, it is not considered that the proposed wind farm Development will generate significant visual effects in respect of major routes.

#### *11.4.5.5 Visual effects on Tourism, Recreational & Heritage Features*



As previously set out in **Section 11.3.5.5**, there are numerous tourism, recreational & heritage features within the Study Area. In total, of the 27 viewpoints assessed as part of this LVIA, 12 adhere to this receptor type.

Notably, 10 of these 12 viewpoints are from the Wild Atlantic Way, the highest likely visual impact along which is deemed to be 'Moderate', where both viewpoints being less than 6km from the nearest Development. VP16 (located less than 5km from the Site) and VP21 both have a visual impact of 'Moderate-Slight'. In the instance of VP21 the turbines present at a modest scale in the distance however are observed from a designated scenic view in county Kerry which represents a higher sensitivity. Notably, two viewpoints from along the Wild Atlantic Way are likely to experience an 'Imperceptible' visual impact significance, with a further two viewpoints deemed to have a 'Slight-imperceptible' visual impact significance. Further receptors such as the Tullaher Loop Walk recorded a likely visual impact significance of 'Moderate-slight'. The Shannon Way and the Glin Heritage Trail both recorded a visual impact significance of 'Slight imperceptible.' Notably, two viewpoints (i.e. VP14 & 15) were captured from the dismantled West Clare Rail Line, which is proposed to be potentially developed, at some point in the future, as a public greenway. Both viewpoints are within 2km of the nearest proposed turbine, the likely visual impact significance is deemed to be 'Moderate-slight and 'Moderate'

Thus, it is not considered that the Development will generate significant visual effects in respect of tourism, recreational & heritage features.

#### *11.4.5.6 Visual effects Conclusion*

Based on the visual impact assessment outlined in **Sections 11.4.4 - 11.4.5** above, it is not considered that the Development will generate significant visual effects at receptors in the Central Study Area or Wider Study Area.

### 11.4.6 Cumulative Effects

There are 16 existing, permitted and in-planning wind farms contained within the Study Area. These are arranged in three distinct clusters within relatively discrete landscape settings and there are also three somewhat isolated developments. The cumulative developments are outlined in **Table 11.10** above, which also indicates where they lie in relation to the Development.

A cumulative Zone of Theoretical Visibility (ZTV) map is also provided as **Figure 11.7** and indicates parts of the Study Area with visibility of the Development in isolation as well as existing, permitted and in-planning turbines only. Combined visibility between the Development and other developments is also indicated and this is the most relevant category to the cumulative impact assessment.

The cumulative ZTV map indicates that the majority of the central and southwestern portions of the Study Area will have combined theoretical visibility of the proposed Development in conjunction with other wind energy developments. This partly due to the low-lying landform in these parts of the Study Area that incline gently towards the broad Shannon Estuary. It is also due to the presence of three nearby wind energy developments in the peatland / marginal farmland context of the central study area and the substantial cluster of six developments on the southern side of the River Shannon. Despite the presence of five wind energy developments within the eastern hill country of the Study Area, combined visibility with the Development is sporadic and accounts for only about 32% of the eastern Study Area. Based on the sporadic 'sand ripple' nature of the cumulative ZTV pattern in this part of the Study Area, any combined visibility is likely to relate to only partial visibility (partial blade sets) of either the proposed and/or cumulative developments.

The north-eastern cluster of developments comprises Cahermurphy, Glenmore and Kiltumper. Slightly isolated, but still part of the eastern hill country developments is Crossmore. These developments are all well beyond 10km away from the Development with the larger Glenmore development beyond 18km away. These developments are contained within a different landscape context to the Development and this serves to reinforce the low level of visual and perceptual connection between them and the Development. Likewise, the southern wind farm developments, comprising Beale, Beal Hill, Tullahennel North, Tullahennel South, Shronowen and Leanamore are also contextually and perceptually divided by the broad Shannon estuary, as well as 13-18km of physical separation. Aside from the general cumulative effect of contributing to wind farm intensity and dispersal throughout the Study Area, these distant wind farms will not generate significant cumulative effects in conjunction with the Development. The same is true of the distant and isolated Carrownaweelaun pair of turbines located along the Loop Head peninsula (over 13km away). Whilst located closer to the Development and on the same side of the Shannon, the Moneypoint turbines are approximately 7km from the proposed turbines and separated by a low ridge.

The greatest potential for cumulative effects to occur is in relation to the existing Tullabrack and Moanmore Turbines and the in-planning Ballykett Turbines. The existing turbines can frequently be seen in the photomontage set, but never in a visually confusing manner that suggests the proposed turbines are a slightly isolated extension to one of them. It can also be considered that the assessment provided in **Section 11.4** above is a cumulative one with respect to the surrounding existing developments because their presence and visual interaction with the proposed turbines are accounted for. From VP9, VP7 and VP15, which lie in close proximity to the west and south of the proposed Development, the existing developments are all seen in the opposite direction or a widely disparate viewing direction, albeit in relatively close proximity also.



From VP21 to the southwest where the proposed turbines are aligned more closely, there is a greater potential for visual confusion and clutter generated from turbine stacking. However, there is still a good sense of scale and depth. At VP2 to the northeast, the proposed turbines present at a similar scale and are framed to the west by the existing Moanmore and Tullybrack Turbines. They may be perceived as part of the same development form here albeit without undue confusion or clutter.

#### *11.4.6.1 Cumulative Impact Conclusion*

Based on the reasons outlined above, it is considered that the proposed wind farm will contribute to cumulative effects in a very minor way at the scale of the Study Area where turbines are already a familiar feature and the Development represents marginal intensification. Within the central Study Area, there is a greater potential for cumulative effects with the two existing and the single in-planning wind farm developments. However, there is a reasonable degree of cohesion between these modest scale developments where they either appear as a single larger entity or a series of discrete smaller developments, but seldom with clutter or scale confusion or a strong sense of being surrounded by turbines. Overall, the magnitude of cumulative impact is deemed to be consistent with a Medium-low effect based on the criteria contained in **Table 11.5**.

Thus, the Development is not considered to generate any significant cumulative effects.

## 11.5 MITIGATION MEASURES

Outside of those landscape and visual mitigation measures that formed part of the iterative design process of this Development over a number of years, and which are embedded in the assessed Project, other specific landscape and visual mitigation measures are not

considered necessary/ likely to be effective. Thus, the effects assessed in **Section 11.4** are the equivalent of residual effects in this instance.



### 11.5.1 Decommissioning Phase

The Decommissioning phase will see a similar nature of effects to the construction stage due to the movement of heavy machinery within the Site and to and from the Site removing turbine components. However, such effects will be temporary in duration and decreasing in scale as turbines are removed from view and the landscape is substantially reinstated to former uses. As with construction stage effects, Decommissioning stage effects are not considered to be significant.

## 11.6 SUMMARY OF SIGNIFICANT EFFECTS

It is not considered that there will be any significant effects arising from the proposed Moanmore Lower Wind Farm.

## 11.7 STATEMENT OF SIGNIFICANCE

Based on the landscape, visual and cumulative assessment contained herein, it is considered that there will not be any significant effects arising from the proposed Moanmore Lower Wind farm.

## 11.8 REFERENCES


- Environmental Protection Agency (EPA) publication 'Guidelines on the Information to be contained in Environmental Impact Statements (2022) and the accompanying Advice Notes on Current Practice in the Preparation of Environmental Impact Statements (2022).
- European Commission (2017). Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU). European Commission.
- Department of Environment Heritage and Local Government (DoEHLG) Wind Energy Planning Guidelines (2006/2019 revision) and Preferred Draft Approach to revising the 2006 Guidance published 2019.
- Landscape Institute and the Institute of Environmental Management and Assessment publication entitled Guidelines for Landscape and Visual Impact Assessment (2013).
- Scottish Natural Heritage (SNH) Guidance Note: 'Assessing the cumulative impact of onshore wind energy developments' (2012).
- Scottish Natural Heritage (SNH) Siting and Designing Wind Farms in the Landscape Version 3 (2017).