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Environmental Impact Assessment Report

Cummeennabuddoge Wind Farm

Chapter 6: Landscape and Visual

Cummeennabuddoge Wind (DAC)

September 2024

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Glossary of Terms

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

List of Abbreviations

Abbreviation	Description
CEMP	Construction Environmental Management Plan
CLVIA	Cumulative Landscape and Visual Impact Assessment
DoHPLG	Department of Housing, Planning and Local Government
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
IWEA	Irish Wind Energy Association
LCT	Landscape Character Type
LCA	Landscape Character Area
NPF	National Planning Framework
NHA	Natural Heritage Areas
RPO	Regional Policy Objectives
RSES	Regional Spatial and Economic Strategy
SPA	Special Protection Areas
SAC	Special Area of Conservation
ZTV	Zone of Theoretical Visibility

6 Landscape and Visual

6.1 Introduction

This chapter of the EIAR considers the potential significant effects of the Proposed Development on landscape and visual resources within the Proposed Development Site and surrounding landscape.

It considers the potential implications of the Proposed Development in terms of its effects on key landscape characteristics and resources, together with the potential effects on views and visual amenity within a study area and from a representative range of visual receptors in the vicinity of the Proposed Development Site.

6.1.1 Statement of Authority

This chapter has been prepared by Landscape Architects listed below, who at the time of writing, represented Brindley Associates.

- Chapter drafted and site visit carried out by Lee Houghton BSc hons, MA hons who has over 15 years of experience as a Landscape Architect;
- Chapter also drafted by Jazz Collier BSc hons, MA hons who has three years of experience as a Landscape Architect; and
- Reviewed by Ross Wilkie BSc hons, MA hons, CMLI, MCIEEM. Who has over 20 years' experience as a Chartered Landscape Architect.

The LVIA chapter figures, cumulative research and graphic input / photographic data collection has been carried out by Atmos and Innovision.

6.2 Methodology and Approach

6.2.1 Legislation, planning policy and guidance

National Planning Policy and Legislation Context

Project Ireland 2040 combines the National Planning Framework (NPF) (Department of Housing, Local Government and Heritage, 2020) and the National Development Plan 2021-2030 to form Ireland's long-term strategy for a more resilient and sustainable future.

These reports highlight the key role rural areas provide in securing a sustainable energy future, the need for the country to transition to a low carbon energy approach and the employment prospects renewable energy can bring to such locations. National Policy Objective 55 and National Strategic Outcome 8 focus on the need to promote renewable energy use and generation.

The Climate Action and Low Carbon Development (Amendment) Act 2021 establishes a legal binding framework for the country to achieve its climate goals. This framework identifies targets and commitments to pursue and achieve a Net Zero, climate neutral economy no later than 2050.

Regional Planning Context

Regional Spatial and Economic Strategy (RSES) for the Southern Region of Ireland

The Southern Region's RSES came into effect in January 2020 and is a strategic document that provides the structure to which the vision of the NPF will be delivered for the southern region of Ireland. Its high-level statutory framework aids local authorities in the production of more specific local plans and policies.

Regional Policy Objectives (RPO) 95-104 of the RSES focus on renewable energy, with RPO 99 specifically focusing on 'Renewable Wind Energy' – supporting wind energy development in appropriate locations.

Kerry County Council (KCC) Development Plan 2022-2028

KCC Development Plan 2022-2028 was adopted in July 2022 and was subject to a Ministerial order on 5th December 2022 and seeks a sustainable and appropriately planned future for the development of County Kerry (KCC, 2022a). Aims, objective, policies, and guidelines are set out to produce a spatial planning framework for the social and economic development of the County.

County Kerry set out ten main goals; two of relevance to this LVIA chapter are to "*transition to a Low Carbon and Climate Resilient Society*" and to "*protect and enhance the Natural and Built Environment*". A number of objectives are set out to achieve this; those relevant to this LVIA chapter include:

- Landscape Sensitivity
  - KCDP 11-76: which states that *"it is an objective of the Council to have regard to any future National Landscape Character Assessment, Regional Landscape Assessments and Landscape Character Map, and the publication of Section 28 Guidelines on Landscape Character Assessment.";*
  - KCDP 11-77: which states that *"it is an objective of the Council to protect the landscapes of the County as a major economic asset and an invaluable amenity which contributes to the quality of people's lives.*"; and
  - KCDP 11-78: which states that *"it is an objective of the Council to protect the landscapes of the County by ensuring that any new developments do not detrimentally impact on the character, integrity, distinctiveness, or scenic value of their area. Any development which could unduly impact upon such landscapes will not be permitted.".*
- Views and Prospects
  - KCDP 11-79: which states that *"it is an objective of the Council to* preserve the views and prospects"; and
  - KCDP 11-81: which states that *"it is an objective of the Council to 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.*"
- Energy
  - KCDP 12-1: which states that *"it is an objective of the Council to support and facilitate the sustainable provision of a reliable energy supply in the County, with emphasis on increasing energy supplies derived from renewable resources whilst seeking to protect and maintain biodiversity, archaeological and built heritage,*

the landscape and residential amenity and integration of spatial planning and energy planning in the county."

- Renewable Energy
  - KCDP 12-14: which states that *"it is an objective of the Council to maximise the development of all renewable energies at appropriate locations in a manner consistent with the proper planning and sustainable development of the County."*
- Wind
  - KCDP 12-18: which states that *"it is an objective of the Council ensure that projects shall be designed and developed in line with the Draft Revised Wind Energy Development Guidelines (DHPLG, 2019) and any update of these guidelines in terms of siting, layout and environmental assessment."*
- Wind Energy Projects
  - KCDP 12-20: which states that *"it is an objective of the Council to ensure that commercial wind energy projects will not be considered in areas outside of 'Open-to-Consideration' and 'Repower Areas'.* "(KCC, 2022a). The Proposed Development takes this into consideration, and it is the opinion of the Applicant, based on this EIAR, that the Proposed Development should be considered on its own merit.

The Development Plan identifies two landscape designations for the county: Visually Sensitive Areas defines Visually Sensitive Areas as comprising; *"…the outstanding landscapes throughout the County which are sensitive to alteration."*

The Development Plan highlights the importance for development in these locations to be; "*integrated into its surroundings in order to minimise the effect on the landscape and to maximise the potential for development*" (Section 11.6.3, KCC, 2022a). The Plan goes on to specify the following relevant provisions that will apply to development in such areas:

- "*There is no alternative location for the Proposed Development in areas outside of the designation;*
- *Individual proposals shall be designed sympathetically to the landscape and the existing structures and shall be sited so as not to have an adverse impact on the character, integrity and distinctiveness of the landscape or natural environment;*
- *Any proposal must be designed and sited so as to ensure that it is not unduly obtrusive. The onus is, therefore, on the applicant to avoid obtrusive locations. Existing site features including trees and hedgerows should be retained to screen the development; and*
- *Any proposal will be subject to the Development Management requirements set out in this plan in relation to design, site size, drainage etc."* (KCC, 2022a)

Cork County Council (CCC) Development Plan 2022-2028

The turbines and above ground structures lie on the border of County Cork and therefore may have indirect effects upon landscape and visual receptors from the county.

Adopted in April 2022, CCC Development Plan sets out the overall vision for the county over the next six years (CCC, 2022). The Development Plan sets out how the local

authority will put national planning policy into action across the county and identifies its core strategy and objectives.

County Development Plan Objectives relevant to this LVIA chapter include those outlined below.

- EC 8-13: Business Development in Rural Areas, which states that *"The development of appropriate new businesses in rural areas will normally be encouraged where:"*
  - "The scale and nature of the proposed new business are appropriate to the rural area and are in areas of low environmental sensitivity; and
  - *The proposal will not adversely affect the character, appearance, and biodiversity value of the rural landscape."*
- ET 13-7: *Permitted in principle*, which states that "*Commercial wind energy development is permitted in principle in these areas where proposals can avoid adverse impacts on:*
  - *"Residential amenity particularly in respect of noise, shadow flicker and visual impact;*
  - *Urban areas and Metropolitan/Town Green Belts;*
  - *Natura 2000 Sites (SPA's and SAC's), Natural Heritage Areas (NHA's), proposed Natural Heritage Areas and other sites and locations of significant ecological value;*
  - *Architectural and archaeological heritage; and*
  - *Visual quality of the landscape and the degree to which impacts are highly visible over wider areas."*

  "In planning such development, consideration should also be given to the cumulative impacts of such proposals."
- ET 13-9: National Wind Energy Guidelines which states that "*Development on-shore wind should be designed and developed in line with the 'Planning Guidelines for Wind Farm Development 2006' and 'Draft Wind Energy Development Guidelines 2019" and any relevant update of these guidelines."*
- GI 14-9: Landscape which states that the Council will aim to:
  - "*Protect the visual and scenic amenities of County Cork's built and natural environment;*
  - *Landscape issues will be an important factor in all land-use proposals, ensuring that a pro-active view of development is undertaken while protecting the environment and heritage generally in line with the principle of sustainability;*
  - *Ensure that new development meets high standards of siting and design;*
  - *Protect skylines and ridgelines from development; and*
  - *Discourage proposals necessitating the removal of extensive amounts of trees, hedgerows and historic walls or other distinctive boundary treatments*."
- GI 14-12: General Views and Prospects which states that the Council will aim to "*Preserve the character of all important views and prospects, particularly sea views, river or lake views, views of unspoilt mountains, upland or coastal landscapes, views of historical or cultural significance (including buildings and townscapes) and views of natural beauty as recognized in the Draft Landscape Strategy*.";
- GI 14-13: Scenic Routes which states that the Council will aim to "*Protect the character of those views and prospects obtainable from scenic routes and in*

particular stretches of scenic routes that have very special views and prospects identified in this Plan. The scenic routes identified in this Plan are shown on the scenic amenity maps in the CDP Map Browser and are listed in Volume 2 Heritage and Amenity Chapter 5 Scenic Routes of this Plan."; and

- GI 14-14: Development on Scenic Routes which states that the Council aim to "*require those seeking to carry out development in the environs of a scenic route and/or an area with important views and prospects, to demonstrate that there will be no adverse obstruction or degradation of the views towards and from vulnerable landscape features. In such areas, the appropriateness of the design, site layout, and landscaping of the Proposed Development must be demonstrated along with mitigation measures to prevent significant alterations to the appearance or character of the area*." (CCC, 2022).

Local Planning Context

Killarney Municipal District Local Area Plan 2018-2024

Killarney Municipal District covers the Proposed Development Site. This Local Area Plan focuses on the sustainable development of settlements in the area, including rural areas.

Standards and Guidance

This LVIA has been undertaken in accordance with established guidance, including the Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3) (Landscape Institute and the Institute of Environmental Management and Assessment, 2013).

Other relevant standards and guidance that this LVIA has been undertaken in accordance with, includes:

- Guidelines on the Information to be contained in Environmental Impact Assessment Reports, May 2022 (Environmental Protection Agency, 2022);
- Best Practice Guidelines for the Irish Wind Energy Industry (Irish Wind Energy Association, 2012);
- Wind Energy Development Guidelines (Department of Environment, Heritage and Local Government, 2006);
- Draft Revised Wind Energy Development Guidelines (Department of Housing, Planning and Local Government, 2019);
- Assessing the cumulative impact of onshore wind energy developments (NatureScot, 2021);
- Visual Representation of Development Proposals: Technical Guidance Note 06/ 19 (Landscape Institute, 2019); and
- Visual Representation of Wind Farms (Scottish Natural Heritage, 2017a).

6.2.2 Consultation

Table 6-1: Consultation

Consultee	Summary of Consultee Response	Where addressed within this Report
Kerry County Council - Scoping response	Within an area identified as a Secondary Special Amenity Area	The current plan has updated the Secondary Special Amenity Area designation name to "*Visually Sensitive Area*". The site is now defined as "*Area 27L - Clydagh River, The Paps and the Derrynasaggart Mountains: Sensitivity: Medium / High*" (KCC, 2022a) Section 6.5.3
Kerry County Council – Scoping Response	Negotiation and Agreement on Assessment Viewpoint Locations – confirmation email correspondence dated 14th April 2022	Section 6.5.4

6.2.3 Assessment Methodology

Introduction

This LVIA has identified, predicted and evaluated the likely significant landscape and visual effects arising from the Proposed Development within the Study Area. Initial ZTVs were produced to 50km of the proposed turbines to understand their likely effects (see Figures 6-2a to 6-3b depicting 50km and 20km for a 200m tip height and 118m hub height). Following interrogation of the ZTVs, potential significant direct and indirect effects are considered to be limited to a more focused area, extending up to 20km (the study area) from the proposed turbine locations (see Figures 6-2b to 6-3b). This is due to the combination of predominantly fragmented theoretical visibility beyond this radius and attenuation of effects as a result of the viewing distance.

Wherever possible, identified effects are quantified, in accordance with best practice guidance, but the nature of LVIA requires interpretation by professional judgement.

The most relevant best practice guidance is the EPA's Guidelines on the information to be contained in Environmental Impact Assessment Reports (2022).

Guidance is also taken from the Third Edition of the Guidelines for Landscape and Visual Assessment (Landscape Institute and Institute of Environmental Management and Assessment, 2013) (hereafter referred to as GLVIA3).

GLVIA3 states that "*professional judgement is a very important part of LVIA*" (paragraph 2.23) and that "*in all cases there is a need for the judgements that are made to be reasonable and based on clear and transparent methods so that the reasoning applied at different stages can be traced and examined by others*" (paragraph 2.24).

GLVIA3 further states that "*There are no hard and fast rules about what effect should be deemed 'significant' but LVIAs should always distinguish clearly between what are considered to be the significant and non-significant effects*" (paragraph 3.32).

Assessment Procedures

Landscape assessment and visual impact assessments are separate, though linked, procedures. Assessment of likely effects on the landscape considers the potential for effects on the environmental resource (i.e., the landscape), whereas assessment of likely visual effects considers the potential for inter-related effects on visual amenity.

Landscape effects derive from changes in the physical landscape which may give rise to changes in its character and how this is experienced, including assessment of landscape perception, which may in turn affect the perceived value ascribed to the landscape.

Visual effects meanwhile relate to changes that arise in the composition of available views as a result of changes: to the landscape; to people's responses to the changes; and to the overall effects with respect to visual amenity.

The assessments of landscape and visual effects are presented separately within the LVIA.

Relevant Terminology

Key terms and definitions used in the assessment, as provided in GLVIA3 (Landscape Institute and Institute for Environmental Management and Assessment, 2013) include:

- Cumulative effects are those that result from additional changes to the landscape or visual amenity caused by the Proposed Development in conjunction with other developments (associated with or separate to it), or actions that occurred in the past, present or are likely to occur in the foreseeable future;
- Direct effects are those directly attributable to the Proposed Development;
- Indirect effects are those resulting indirectly from the Proposed Development as a consequence of the direct effects. Indirect effects often occur away from the Proposed Development Site, or as a result of a sequence of interrelationships or a complex pathway. They may be separated by distance or in time from the source of the effects;
- Landscape capacity is the degree to which a particular Landscape Character Type (LCT) or Area (LCA) is able to accommodate change without unacceptable effects on its character. Capacity varies according to the type and nature of the change being imposed and will reflect both the sensitivity of the landscape resource, and its visual sensitivity;
- Landscape character is the distinct and recognisable pattern of elements that occur consistently in a particular type of landscape that makes one landscape different from another, rather than better or worse;
- Landscape quality (or condition) is a measure of the physical state of the landscape. It may include the extent to which typical characteristics are represented in individual areas, the intactness of the landscape from visual, functional, and ecological perspectives and the condition of individual elements.
- Landscape receptors are aspects of the landscape resource that have the potential to be affected by the Proposed Development;
- Landscape value is the relative value or importance attached to different landscapes by society. A landscape may be valued by different stakeholders for a variety of reasons (often as a basis for designation or recognition), because of its

quality, special features (including perceptual aspects such as scenic beauty), tranquillity or wildness, cultural associations, or other conservation issues;

- Magnitude (of change) combines judgements about the size and scale of the predicted effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration;
- Residual effects are those attributable to the Proposed Development following the establishment of any proposed design mitigation/ enhancements;
- Sensitivity is related to the specific receptors' (landscape or visual) vulnerability to change. Sensitivity is assessed by combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that receptor. Viewpoint sensitivity depends on: the context of the viewpoint; its importance; the current occupation and viewing opportunity of the groups of people being considered; and the number of people affected;
- Significance of effect is a measure of the importance or gravity of the environmental effect as defined by significance criteria specific to the environmental topic;
- Visual amenity refers to the overall pleasantness of views enjoyed by people of their surroundings or to the visual setting or backdrop to the activities they enjoy whilst: living; working; recreating; visiting or travelling through an area; and
- Visual receptors are individuals and/ or groups of people who have the potential to be affected by the Proposed Development.

Baseline

Landscape and visual effects are considered against the baseline situation at the time of the assessment, unless otherwise stated.

The future baseline is also described within the study area in reference to landscape change considering all consented developments and evolution of the landscape within, should the Proposed Development not be implemented. In reference to the EPA's 2022 Guidelines, "*changes to the baseline may be natural changes (due to ecological trends, for example) or may be caused by other actions (nearby projects, for example*".

In respect to the type of development proposed, the future baseline is most pertinent in the consideration of cumulative effects. Where wind energy developments are consented but not yet built or where they exist within the planning process beyond the scoping stage or for which the Applicant is otherwise aware of, they are considered in regard to their potential interactions with the Proposed Development. See Assessment of Cumulative Landscape and Visual Effects below for further methodology details.

Significance Criteria

The assessment of landscape and visual effects is typically based on three stages:

- Classification of the sensitivity of the landscape and visual receptors to the Proposed Development;
- Prediction of the magnitude of change in the landscape or the view; and
- Evaluation of the significance of landscape and visual effects depending on the sensitivity of the landscape or viewer to change and the magnitude of change resulting from the Proposed Development.

Sensitivity/ Importance of Landscape and Visual Receptors

The sensitivity of a receptor is considered to be a combination of its susceptibility to the type of change proposed and the value attached to the receptor.

Landscape

The susceptibility of a landscape receptor is judged on the extent to which the landscape can accommodate change without effects upon its key characteristics. Susceptibility varies according to the type of development proposed, including whether it will have direct or indirect effects on the landscape, and the landscape's:

- Individual elements;
- Key characteristics; and
- Inherent quality or condition.

The proximity of the Proposed Development has no bearing on the susceptibility of a landscape receptor beside altering the potential for direct or indirect effects.

The table below defines landscape susceptibility.

Table 6-2: Landscape Receptor Susceptibility

Landscape Receptor Susceptibility	Definition
Very high	Landscape receptors with key characteristics that are very highly vulnerable to the type of development / change proposed. For example, wildland areas where there is no or very little evidence of man. Typically, these are defined by low-scale, naturalistic elements where no or limited man-made features are present. Often, no turbines are present within the landscape. Very high susceptibility is considered where the Proposed Development may have direct effects upon the landscape.
High	Landscape receptors with key characteristics that are highly vulnerable to the type of development / change proposed. Typically, these landscape receptors are defined by medium to low-scale elements, mostly of a naturalistic nature with some man-made features present. Small-scale, confined and complex landscape are considered more susceptible to change as result of wind farm development. Turbines may be present within the landscape. High susceptibility is considered where the Proposed Development may have direct effects upon the landscape and/or where the Proposed Development may have indirect effects on views from the landscape that are noted as a key characteristic.
Medium	Landscape receptors with key characteristics that are of moderate vulnerability to the type of development / change proposed. Typically, these landscape receptors which are defined by medium-scale elements, with a mixture of man-made and naturalistic features. Open and simple landscapes are considered to be less susceptible to change as a result of wind farm development. Turbines may present within the landscape. Medium susceptibility is considered where the Proposed Development may have indirect effects on views from the landscape that are noted as a key characteristic.
Low	Landscape receptors with key characteristics that are unlikely to be affected by the type of development/change proposed. For example, these landscape receptors will include wind farm landscapes, where turbines or other energy infrastructure form a prominent part of the

Landscape Receptor Susceptibility	Definition
	existing landscape fabric and views. Low susceptibility is considered where the Proposed Development may have indirect effects on views from the landscape.

The value of a landscape receptor is judged by the importance of the landscape to society, this includes a number of different stakeholders who may use the landscape in different ways. The following factors are used to identify the value of a landscape:

- International, national and local designations protecting a landscape;
- Scenic quality;
- Rarity;
- Representativeness;
- Conservation interest;
- Recreation value;
- Perceptual aspects;
- Associations; and
- Inherent quality or condition.

The table below defines landscape value.

Table 6-3: Landscape Value

Landscape value	Definition
Outstanding	Iconic and highly scenic landscape of international or nationally important landscape such as a World Heritage Site. The cultural associations of the landscape receptors are widely recognised in literature or other media.
High	Highly scenic landscape of national or local importance, the cultural associations of which are regularly recognised in art, literature, or other media. Landscape noted for its importance through local authority landscape/townscape assessments or local designation reviews.
Medium	A landscape which may be of value to a local community but has no formal designation. An ordinary or good quality landscape but unlikely to be visited by people to experience the landscape.
Low	A landscape of low quality and/or has been left derelict, this includes industrial estates and busy main roads which may be of minimal local community value and has no formal planning status.

Visual

Visual receptors' susceptibility is determined by the amount of change that can be accommodated within a view. Susceptibility of the receptor varies dependent upon:

- The context of the view;
- Its relative importance;
- The duration of the viewing opportunity;
- The number of people potentially affected; and
- Any activity they may be engaged in (e.g. leisure activities, driving, working).

The proximity of the Proposed Development has no bearing on the susceptibility of a visual receptor.

Susceptibility is described as very high, high, medium or low according to the following criteria.

Table 6-4: Visual Susceptibility

Visual Receptor Susceptibility	Definition
Very high	Viewers whose attention or interest is highly focused on their surroundings, typically with a prolonged viewing opportunity, including: • Communities with outstanding views of the highest scenic quality (e.g. towards or within/ across nationally designated landscapes); • People engaged in outdoor recreation with outstanding views of the highest scenic quality (for example users of rights of way including national trails and promoted routes with views within, across, or of nationally designated landscapes); and • Visitors to heritage assets or other attractions where views are of the highest scenic quality and an important contributor to experience.
High	Viewers whose attention or interest is focused on their surroundings, typically with a prolonged viewing opportunity including: • Communities where views contribute to the landscape setting enjoyed by residents; • People engaged in outdoor recreation (for example users of rights of way including national trails and promoted routes, whose interest is likely to be focused on the landscape or views from nationally designated landscapes); • Visitors to heritage assets or other attractions where views of the surroundings are an important contributor to experience; and • People travelling on scenic routes and tourist routes, where attention is focused on the surrounding landscape.
Medium	Viewers whose attention or interest is focused on their surroundings to some extent including: • People travelling on local roads, where the speed is reduced and their attention may be focused on the surrounding landscape, but is transitory; and • People at their place of work whose attention is focused on the surroundings and where setting is important to the quality of working life (for example farmers and estate rangers).
Low	Viewers whose attention or interest is less focused on their surroundings, including: • People travelling more rapidly major roads or more minor roads (at national speed limit), rail or transport routes (not recognised as scenic routes); • People engaged in outdoor sport or recreation which does not involve or depend upon appreciation of views of the landscape; and • People at their place of work whose attention is not on their surroundings (and where setting is not important to the quality of working life).

The value of a view is judged importance of the receptor to people. This includes views noted for their importance, such viewpoints and locally, nationally and globally designated views. The table below defines the potential value associated with a view.

Table 6-5: Value of a view

Value of a view	Definition
Outstanding	Iconic, and highly scenic view, of national or international importance, or a view which is associated with a nationally or internationally designated landscape or heritage asset, the cultural associations of which are widely recognised in art, literature, or other media.
High	Highly scenic view, associated with a landscape or heritage asset of national or regional value, the cultural association of which are regularly recognised in art, literature, or other media. Views associated with local authority designated landscapes or recorded as of importance on long distance walking routes, in Conservation Area Appraisals or local authority landscape / townscape assessments. The value of such views may have been identified as part of the consultation process and through site visits. Elements or features within the view are likely to be in good condition, with few detracting features.
Medium	Although the view may be valuable to the local community, the location has no formal planning status, is in an area of ordinary landscape value or reasonably good landscape value but with detracting elements or features. People are unlikely to visit the viewpoint to experience the view.
Low	View is of an area of low landscape quality that has very few positive characteristics and numerous or dominant detracting features (e.g. industrial estate / busy main road). The view may be of minimal value to the local community and the location has no formal planning status.

Landscape and Visual Sensitivity

The overall sensitivity of a receptor is the culmination of susceptibility and value. The below table sets out the criteria used in this assessment to determine the sensitivity of receptors.

The following table provides a guide for the assessor and is not intended to be prescriptive. It has been included to illustrate how the combination of receptor susceptibility and receptor value can determine receptor sensitivity. The application of professional judgement means there may be some instances where the predicted effect does not align with the grade illustrated below.

Table 6-6: Sensitivity of Receptors

Susceptibility of Receptor	Landscape Value/ Value of View						
		Outstanding	High	High/ Medium	Medium	Medium/ Low	Low
	Very High	Very high	High/ very high	High	High	Medium/ high	Medium/ high
	High	High/ very high	High	High	Medium/ high	Medium	Medium
	High/ Medium	High	High	Medium/ high	Medium	Medium	Medium
	Medium	High	Medium/ high	Medium	Medium	Medium	Medium/ low
	Medium/ Low	Medium/ high	Medium	Medium	Medium	Medium/ low	Low
	Low	Medium/ high	Medium	Medium	Medium/ low	Low	Low

As the sensitivity of landscape and visual receptors can vary depending on the correlation of several factors, the determined sensitivity of each receptor is determined by the assessor on a case-by-case basis. As such, intermediate grades such as Medium /high are possible.

Magnitude of Change

The magnitude of change is described as high, medium, low, negligible or none based on the interpretation of various parameters, including:

- Distance: the distance between the receptor and the Proposed Development. Generally, the greater the distance, the lower the magnitude;
- Extent: the extent of the Proposed Development which is visible;
- Proportion: the arc of view occupied by the Proposed Development in proportion to the overall field of view. A panoramic view, where the Proposed Development

takes up a small part of it, would generally experience a lower magnitude than a framed or focused view, even if the arc of view occupied by the Proposed Development is similar in both;

- Geographical extent: the extent of geographical area influenced. Generally, a larger area would result in a higher magnitude of change;
- Duration: the duration of the effect. An effect experienced in a single location over an extended period of time is likely to result in a higher magnitude of change than a similar visual effect which is of a short duration, such as a brief view from a road;
- Reversibility: whether change associated with the Proposed Development could be fully or partially reversed or is irreversible;
- Orientation: the angle of the view in relation to the main receptor orientation, where there is a dominant direction to the vista;
- Context: the elements which provide the setting and context to the Proposed Development such as other built development; and
- Backdrop: the elements which provide the backdrop to the Proposed Development. Generally, where landform or woodland forms the background to the view, the magnitude of change is lower.

Judgements on the magnitude of change rely, to a great extent, on professional judgement. The magnitude of change is determined on a case-by-case basis with consideration given to the weighting of the variable parameters described above. As a result, intermediate grades such as high/medium are possible.

Table 6-7 sets out the criteria used in this assessment to determine the magnitude of change.

Table 6-7: Magnitude of Change

	Criteria	
Magnitude of Change	**Landscape**	**Visual**
High	Total loss of or major alteration to key elements/ features/ characteristics of the baseline conditions such that character/composition/attributes of the existing baseline would be fundamentally changed.	Where there are predicted to be substantial changes in the view, which may be visible for a long duration, facing the change, or which may be in stark contrast with the existing view, or obstruction of a substantial part or important elements of views beyond the Proposed Development area.
Medium	Partial loss of or alteration to one or more key elements/ features/ characteristics of the baseline conditions such that character/composition/attributes of the existing baseline would be partially changed.	Where there are predicted to be moderate changes in the view, or visible for a moderate duration, perhaps at a slight angle, where changes may be in contrast with the existing view, or obstruction of a noticeable part or elements of views beyond the Proposed Development area.
Low	Minor loss or alteration to one or more key elements/ features/ characteristics of the baseline conditions. Change arising from the loss/	Where there are predicted to be slight changes in the view, or visible for a short duration, perhaps at an oblique angle, or which may blend to an extent with the existing view.

Magnitude of Change	Criteria	
	Landscape	Visual
	alteration would be discernible but underlying character/composition of the baseline condition would be similar existing circumstances/ patterns.	
Negligible	Very minor loss or alteration to one or more key elements/ features/ characteristics of the baseline conditions. Change barely distinguishable - approximating to the 'no change' situation.	Where the change in view is barely visible, or visible for a very short duration, perhaps at an oblique angle, or which may blend with the existing view, usually at some distance from the Proposed Development.
None	No change.	No change.

Significance of Effects and Significance of Residual Effects

In accordance with EPA EIAR Guidelines (2022) significance is determined by a combination of scientific and subjective concerns. This requires professional judgement of competent experts which can lead to differences in opinion where assessment is, to an extent, of a subjective nature. EIAR lays out the varying degrees of significance attributed to differing factors to provide clarity to the determination of effects.

As per EPA EIAR Guidelines (2022), the terminology below is used within this chapter to describe the significance of effects:

- **Profound** - an effect which obliterates sensitive characteristics of a view or landscape;
- **Very Significant** - an effect which, by its character, magnitude, duration or intensity, significantly alters more than one sensitive aspect of the landscape/ view;
- **Significant** - an effect which, by its character, magnitude, duration or intensity, alters a sensitive aspect of the landscape/ view;
- Moderate - an effect that alters the character of the landscape/ views in a manner that is consistent with existing and future baseline trends;
- Slight - an effect which causes noticeable changes in the character of the landscape/ view without affecting its sensitivities;
- Not Significant - an effect which causes noticeable changes in the character of the landscape/ view but without significant consequences;
- Imperceptible - an effect capable of measurement but without significant consequences; and
- None – where no effects are predicted as a result of the Proposed Development.

Effects classified as significant are emboldened throughout the assessment.

Table 6-8 provides a guide for the assessor and is not intended to be prescriptive. It has been included to illustrate how the combination of receptor sensitivity and predicted magnitude of change can result in significant effects and the threshold in which significant effects may arise; although the application of professional judgement means there may be some instances where the predicted effect does not align with the grade illustrated.

Table 6-8: Matrix for Determining the Significance of Effects

Magnitude of Change	Sensitivity of Receptor: Very High	High	High/ Medium	Medium	Medium/ Low	Low
Very High	**Profound**	**Very Significant**	**Significant**	**Significant**	Moderate	Moderate
High	**Very significant**	**Significant**	**Significant**	Moderate	Moderate	Moderate
High/ Medium	**Significant**	**Significant**	Moderate	Moderate	Moderate	Slight
Medium	**Significant**	Moderate	Moderate	Moderate	Slight	Slight
Medium/ Low	Moderate	Moderate	Moderate	Slight	Slight	Not significant
Low	Moderate	Moderate	Slight	Slight	Not significant	Not significant
Negligible	Imperceptible	Imperceptible	Imperceptible	Imperceptible	Imperceptible	Imperceptible
None	None	None	None	None	None	None

Significant effects usually concern the immediate landscape around the Proposed Development and close views from sensitive locations nearby.

In accordance with GLVIA3, professional judgement and experience is applied in each instance in order to identify those effects that are likely to be significant.

Effects graded below significant (including moderate, slight, not significant, imperceptible and no effects) are not considered significant.

Nature of Effects

Effects can be direct or indirect. Direct effects are generally limited to those parts of the site physically affected by the footprint of the Proposed Development. Potential indirect effects generally relate to the introduction of elements of the Proposed Development to the context of the existing landscape and visual baseline.

Effects may be temporary (i.e. effects lasting approximately less than a year), short-term (i.e. effects lasting approximately one to seven years), long term (effects lasting fifteen to sixty years) or permanent (i.e. effects lasting approximately over sixty years).

Effects attributable to the Proposed Development can be regarded as positive/ beneficial or negative/ adverse and in some cases may be considered neutral. Generally, changes in the landscape that result in the loss of rural characteristics are generally considered to be negative/ adverse.

The construction of permanent human-made features such as new renewable energy development with supporting infrastructure is generally considered to be negative within rural landscapes unless promoted as part of regional landscape strategy.

However, developments of the nature proposed also have the potential to generate beneficial effects such as landscape improvements, mitigation measures or as well-designed elements, which add value to the landscape experience or to the sense of place.

In the context of this assessment, landscape effects are assumed to be adverse, unless specified otherwise.

Defining the probability of effects, likely effects concern effects that can be reasonably expected to occur as a result of the Proposed Development if mitigation measures are properly implemented. Unlikely effects are not anticipated should mitigation measures be properly implemented.

Much of the effects of the Proposed Development are determined to be reversible in that they can be undone through appropriate remediation and removal of infrastructure from above the ground at the end of the life of the project.

With regards to visual effects, it is important to acknowledge personal opinion as some may view the same development as beneficial, adverse, or neutral, depending upon their predisposition towards landscape change and/ or new developments. In the context of this assessment, the Proposed Development is considered to be adverse, unless specified otherwise.

Limitations and Assumptions

The assessment has been based on the proposed site layout presented in Figure 1-2, and the design proposals for the wind farm and associated infrastructure set out in Chapter 4 Description of Development.

The LVIA has been undertaken with reference to a combination of desk and field study and was informed by Zone of Theoretical Visibility (ZTV) mapping supplied by Atmos and aerial photography in order to determine the scope of the assessment and focus

on those receptors with the potential to experience significant effects as a result of the Proposed Development.

The abovementioned ZTVs predict visibility using the height information of the proposed turbines and existing topography of the study area. They do not take the potential screening effect of intervening vegetation and built form into account. These bareground ZTVs therefore represent a higher level of visibility across the landscape as screening elements such as trees and built form are not represented and would have the potential to lower the visibility over the lifetime of the Proposed Development, particularly that of coniferous plantation woodland where rotational felling is carried out.

The assessment of landscape and visual effects was undertaken from publicly accessible roads and paths, based upon anticipated views from areas surrounding the Proposed Development, and with inward views of the study area in order to quantify the theoretical visibility patterns associated with the Proposed Development.

This assessment covers the Proposed Turbine Range (see Table 6-9 below) which includes the full range of proposed hub heights, tip heights and rotor diameters. Wirelines of the proposed turbines have been modeled from the perspective of a select number of viewpoints in order to consider the entire range of effects produced by the varying candidate turbines (see Appendix 6-1). These selected viewpoints were chosen as they effectively serve as representative samples of the likely visual effect of the Proposed Development on the surrounding landscape. Interrogation of these wirelines identified there is likely to be no substantial difference in effect between the range of scenarios. It was therefore concluded that scenario one will form the basis of assessment within this chapter due to a slightly wider sweep of the blades and therefore the occupation of a marginally larger area of airspace.

Table 6-9: Proposed Turbine Range

Scenario	Hub Height	Rotor Diameter	Tip Height
One	118m	163m	199.5m
Two	125.5m	149m	200m

Assessment of Cumulative Landscape and Visual Effects (CLVIA)

Within the assessment of landscape and visual effects, consideration is given to potential cumulative effects that may arise from the introduction of the Proposed Development in addition to the in-planning and consented developments. See Technical Appendix 2-3 for further information on the cumulative site selection process and a list of cumulative sites included within the assessment.

Cumulative sites were grouped depending on their location in order to produce meaningful cumulative ZTVs with good readability, in order to illustrate the relationship between the Proposed Development and operational, consented, appealed and in-planning (proposed) windfarm developments within 30km (see Figures 6-5 to 6-12). Within the assessment these groups are referred to as the south, central, north, east and south-west cumulative groups.

The Cumulative Effects sections below each receptor within Section 6.5, assesses the cumulative effects landscape and visual effects as appropriate of the Proposed Development in combination / succession and sequence with the identified cumulative sites.

Publicly available wind farm layouts have been built into the cumulative database and modelled within cumulative visualisations.

The CLVIA for the Proposed Development has been prepared with reference to current best practice guidance and GLVIA3.

Nature of Cumulative Effects

The approach to the CLVIA was informed by NatureScot guidance (2021). In doing so the CLVIA takes account of effects on the physical fabric of the landscape as well as changes to landscape character that may arise when two or more developments introduce new features into the landscape.

As described by NatureScot, "*the purpose of a Cumulative Landscape and Visual Impact Assessment (CLVIA) is to describe, visually represent and assess the ways in which a proposed wind farm would have additional impacts when considered with other consented or proposed wind farms. It should identify the significant cumulative effects arising from the proposed windfarm*" (NatureScot, 2021).

Cumulative visual effects which may affect views and visual amenity are also considered. Cumulative visual effects can occur as follows:

- Combined effects occur where a static receptor is able to view two or more developments from a viewpoint within the receptors arc of vision (assumed to be about 120 degrees for the purpose of this assessment) at the same time;
- Successive effects occur where a receptor is able to view two or more developments from a viewpoint, but needs to turn or re-position themselves or head to see them; and
- Sequential effects occur when a receptor is moving from one area to another, for instance when a person is travelling along a road or footpath, and is able to see two or more developments at the same, or at different times as they pass along the route. Frequent sequential effects occur when a development appears intermittently with short time lapses between points of visibility, depending on the speed and distance. Occasional sequential effects occur where long periods of time lapse between views of developments, due to a lower speed of travel and / or longer distances between the points of visibility. Sequential effects can potentially affect views from routes over a much wider area, as different developments become apparent in views when moving through the landscape.

Significance of Residual Cumulative Effects

The significance of potential cumulative effects has been judged using a multifaceted approach based on that described above for the LVIA. This considered the sensitivity of landscape and visual receptors and the potential magnitude of change in the landscape or view due to the addition of the Proposed Development.

The assessment of cumulative effects uses similar visualisation methodology to those utilised in the assessment of landscape and visual effects. Cumulative ZTVs and, wireframes with associated photography have all been utilised to inform and illustrate the cumulative assessment. The parameters utilised to evaluate the cumulative magnitude of change at representative viewpoints include assessment of:

- Number of proposed wind turbine developments in the view;
- Distance to each of the cumulative wind turbine developments;
- Direction of the submitted wind turbine developments relative to the viewpoint;

- Horizontal angle of view occupied by each of the submitted wind turbine developments; and
- Relative composition and scale of the submitted wind turbine developments.

Effects are broadly described as being:

- **Profound** - Where the Proposed Development obliterates sensitive characteristics of a view or landscape, when experienced in conjunction with other developments;
- **Very significant** – Where the Proposed Development has a substantial additional effect, when experienced in conjunction with other developments, on the landscape or views;
- **Significant** – Where the Proposed Development has an obvious additional effect, when experienced in conjunction with other developments, on the landscape or views;
- Moderate – Where the Proposed Development has a discernible but not a pertinent additional effect, when experienced in conjunction with other developments, on the landscape or views;
- Slight – Where the Proposed Development has a relatively small additional effect, when experienced in conjunction with other developments, on the landscape or views;
- Not significant - Where the Proposed Development has a small and inconspicuous additional effect, when experienced in conjunction with other developments, on the landscape or views;
- Imperceptible – Where the Proposed Development has an imperceptible additional effect, when experienced in conjunction with other developments, on the landscape or views; or
- None – where no cumulative effects are predicted.

As shown in Table 6-5, there are gradual transitions between levels of effects, and each is assessed on a case-by-case basis.

Cumulative Landscape Effects

The NatureScot 2021 publication Assessing the cumulative Impact of Onshore Wind Energy Developments identifies two principal areas of cumulative landscape effects, on the physical fabric of the landscape and on the landscape character. To this effect the guidelines state (italicised sections indicate direct quotes):

- "*Cumulative effects on the **physical fabric** of the landscape when two or more developments affect landscape components such as woodland, dykes, rural roads or hedgerows. Although this may not significantly affect the landscape character, the cumulative effect on these components may be significant – for example, where the last remnants of former shelterbelts are completely removed by two or more developments; and*
- *Cumulative effects on **landscape character** arise when two or more developments introduce new features into the landscape. In this way, they can change the landscape character to such an extent that they create a different landscape character type, in a similar way to large scale afforestation. That change need not be adverse; some derelict or degraded landscapes may be enhanced as a result of such a change in landscape character*".

Potential changes to the physical fabric outlined above are predominantly restricted to the Proposed Development Site and the LCA / LCT in which the site is located. Therefore, these landscape receptors will be assessed for cumulative landscape effects on the physical fabric of the landscape arising from the Proposed Development.

On review of Technical Appendix 2-3 Cumulative Sites, it has been determined that wind farms are the only type and scale of development which have potential for cumulative landscape effects with the Proposed Development.

Cumulative effects between the Proposed Development and all other existing and permitted windfarms (within 30km) on the landscape character will be assessed for the Landscape Character Areas / Types (LCAs / LCTs) that are deemed to have potential to experience significant effects.

The cumulative assessment will be undertaken with reference to the following figures:

- Figure 6-4 – Cumulative Wind farms Within 30km;
- Figure 6-5 – South-west Wind Farm Group Comparative ZTV (Operational and Consented);
- Figure 6-6 - South-west Wind Farm Group Comparative ZTV (Operational, Consented and Proposed);
- Figure 6-7 – Central Wind Farm Group Comparative ZTV (Operational and Consented);
- Figure 6-8 – North Wind Farm Group Comparative ZTV (Operational and Consented);
- Figure 6-9 – East Wind Farm Group Comparative ZTV (Operational and Consented);
- Figure 6-10 – East Wind Farm Group Comparative ZTV (Operational, Consented and Proposed);
- Figure 6-11 - South Wind Farm Group Comparative ZTV (Operational and Consented); and
- Figure 6-12 - South Wind Farm Group Comparative ZTV (Operational, Consented and Proposed).

Cumulative Visual Effects

For this assessment, the NatureScot (2021) definition of cumulative effects as additional changes caused by a Proposed Development in conjunction with other similar developments is used. The definition in the DoEHLG Guidelines (2006) defines cumulative impacts in terms of windfarms, as the perceived effects on the landscape of two or more wind energy development from any one place.

The GVLIA (2013) and NatureScot (2021) guidance also notes that cumulative visual effects can be experienced in combination, where two or more developments are visible form one viewpoint, as well as sequentially, where a viewer moves to another viewpoint and sees the same for different developments.

The cumulative assessment will concentrate on the below issues:

- Whether the proposed turbines increase the spatial extent of turbines in the view;
- Whether there is visual contrast in different size and design between different wind farm developments, and whether stacking of turbines occurs; and
- If there is visual contrast then, whether there is visual separation between the proposed turbines and other wind developments in the landscape.

The latter two are due to the NatureScot (2017b) publication Siting and Designing Wind farms in the Landscape stating that;

> *"a key factor determining the cumulative impact of windfarms is the distinct identity of each group. This relates to their degree of separation and similarity of design. This applies whether they are part of a single development, a wind farm extension or a separate windfarm in a wider group. A windfarm, if located close to another of similar design, may appear as an extension; however, if it appears at least slightly separate and of different design, it may conflict with the other development. In these cases, if a landscape is unable to accommodate the scale of a combined development, wind farm groups should appear clearly separate."*

In other words, cumulative visual effects are reduced if two or more wind farms either read as one continuous development due to similarity in design and scale or if this is not the case visual separation should ensure that they appear as two separate entities.

Additionally, undesirable effects such as 'visual stacking' (overlapping of turbine rotors) will also be taken into consideration.

As cumulative visual effects depend on the aspect from which the turbines will be seen various viewpoints were selected to give a thorough overview of how the proposed turbines will appear in conjunction to turbines already present.

6.3 Baseline Conditions

The Proposed Development Site

The Proposed Development Site is located in an area designated as a Visually Sensitive Area, due to its sensitive landscape and a Visually Sensitive Area (to wind development) by KCC as part of the County's Development Plan (2022b) (See Figure 6-1a).

The Proposed Development Site boundaries are broadly defined by forestry. The exceptions to this include the western boundary, which can be distinguished by informal forestry tracks and two small areas along the southern boundary which are undefined.

The topography of the Proposed Development Site inclines from a low point of approximately 300m AOD in the south-east boundary of the Proposed Development Site to a high point of approximately 520m AOD along the north western boundary.

Occasional views from within the Proposed Development Site of the surrounding hills and mountains are possible amongst breaks between the forest within the Proposed Development Site. Surrounding wind farms including Coomachea and Gneeves Wind Farms are visible from elevated areas .

The rising topography of the Proposed Development Site will partially limit views towards it from north eastern parts of the study area. Views from the south, west, east, and north-east will remain relatively open. Existing forest and undulating terrain of the study area will provide partial screening to these views.

Landscape Setting

27 viewpoints have been identified numbered 1-27 to assess the impact; see Figures 6-2a to 6-3b) to assess the impact of the Proposed Development upon the views of local receptors.

A diverse mixture of landcover makes up the study area including farmsteads, quarries, and residential properties, with forestry and farmland comprising the majority of the land. Mangerton Mountain Group is located to the west of the study area. A number of small settlements lie within the study area, the larger of these include Millstreet, Ballyvourney / Ballymakeery, Rathmore, Lissivigeen and Kilganvan.

A number of existing operational windfarms lie within 30km of the Proposed Development Site (see Figures 6-4). Clydaghroe wind farm (south), Coomacheo wind farm(north), Gneeves wind farm (north-east), Curragh wind farm (east) and Caherdowney wind farm (east) all lie adjacent to the Proposed Development Site. See Technical Appendix 2-3 for details of cumulative sites included within this assessment.

The KCC LCA 27. Clydagh River, The Paps and the Derrynasaggart Mountains, covers the majority of land within the Proposed Development Site. LCA 27 is characterised by (KCC, 2022):

- Enclosure from high mountains;
- Peat bog and coniferous forests;
- Wind turbines on higher ground with housing restricted to valley floors;
- Significant views from the N22 route that passes across the LCA; and
- The Visually Sensitive Special Amenity area which covers most of the LCA, views and prospects from the N22 and the archaeological landscape of which the Paps are part off.

Land to the east of the Proposed Development Site that lies within CCC represent LCT 15b Ridged and Peaked Upland (CCC, 2014) (see Figure 6-1, Landscape Designations and Character). This LCT is noted to have medium landscape value, medium landscape sensitivity and is of county level landscape importance.

Also located within 10km of the Proposed Development and predicted to have substantial theoretical visibility of the proposed turbines are:

- LCT 11 Broad Marginal Middleground Valleys;
- LCT 12a Rolling Marginal Middleground;
- LCT 13a Valleyed Marginal Middleground; and
- LCT 16c Glaciated Cradle Valleys.

A number of other LCAs and LCTs lie within the study area (see Figure 6-1a). Interrogation of the ZTVs (see Figures 6-2a to 6-3b) identify intermittent theoretical visibility beyond 10 km of the Proposed Development. It is therefore considered unlikely that LCAs and LCTs beyond this distance will experience significant effects as a result of the Proposed Development.

The Proposed Development site and the west of the study area is designated by KCC as a Visually Sensitive Area (KCC, 2022b) (See Figure 6-1a). Further locations designated as Visually Sensitive Areas include five distinct areas in the north-west of the study area and a further two locations which extend just over and beyond the study area to the west. These areas are designated due to their sensitivity to alteration and any

development in these locations would require suitable integration with their surroundings. Only the Visually Sensitive Area in which the Proposed Development Site lies and extends to the west of the Site is considered to have potential to experience significant effects as a result of the Proposed Development. This is due to limited predicted theoretical visibility across the remaining Visually Sensitive Areas.

Three High Value Landscape Areas as designated by CCC are located to the south-east and south-west of the study area. Designated due to their landscape value and sensitivity, they are considered to be of county or national importance (CCC, 2022). These High Value Landscape Areas are incorporated in LCTs. Theoretical visibility of the Proposed Development is predicted across parts of LCT 8, Hilly River and Reservoir Valleys and given the designations high sensitivity, it will be taken forward within this assessment. The remaining two High Value Landscape Areas are not considered likely to experience significant effects due to limited theoretical visibility of the Proposed Development and are therefore not taken forward within this assessment.

A number of recreational routes lie within the study area and are predicted to have potential to experience views of the Proposed Development Site. These include:

- CCC Scenic Routes:
  - S14: Road between Mallow and Roskeen Bridge;
  - S16: Road at Taur;
  - S17: Road West of Newmarket;
  - S18: Mountain roads between Seefin and Nad;
  - S19: Road from Glenaknockane;
  - S20: Roads at Mushera in the boggeragh Mountains and roads from Mushera to Ballynagree, Lackdoha and Rylane Cross;
  - S21: Road a Carriganima;
  - S22: Road from Ballyvourney to Mullaghanish to Caherdowney;
  - S23: Road between Macroom and Derrynasaggart Mountains;
  - S24: Road between Coolera and Coom;
  - S25: Winding road joining Coolea – Coom road to Lissacresig road;
  - S26: Road between Lissacresig and the Mouth of the Glen;
  - S27: Road between Gougane Barra and the Mouth of the Glen;
  - S28: Scenic road at the Pass of Keimaneig to Gougane Barra;
  - S29: Road to Kealkill via Cousane;
  - S30: Road between Dunmanway and Coolkellure, Castledonovan and Bantry;
  - S31: Road between Ballineen and Ballincarriga to Dunmanway;
  - S32: South Lake Road – Inchigeela and Ballingeary to Keimaneigh;
  - S33: Road between Ballingeary – branch off S.Lake Road – and Kealvaugh;
  - S35: Road between Dromcarra and Rossmore;
  - S36: Roads adjoining Tarelton – scenic views;
  - S37: Road between Leemount and Macroom via Coachford; and

Important views and prospects within the study area as noted by KCC can be seen on Figure 6-1a. As noted by KCC, development should be designed not to hinder or materially affect these views / prospects (KCC, 2022a).

The N22, a dual-carriageway road, traverses the study area from north-west to south-east ultimately connecting Killarney with Macroom. This route has recently been extended by 8km between Carrigaphooca and Toonlane and is aptly named the Macroon Bypass. The R569 lies within 10km of the Proposed Development Site. This single carriageway road breaks off the N22 at Clonkeen and travels west towards Kilgarvan.

A further dual-carriageway road, the N72, travels from east to west passing through Rathmore in the north of the study area. The R582 breaks off from the N72 at Rathmore and travels south-east before turning south through Millstreet and eventually joining Macroom. Leaving Milstreet the R583 heads north-east towards Dromagh where it joins the N72.

A further number of single-carriageway and single-track roads connect settlements across the study area.

Other notable features include Lough Guitane, a large body of water, to the west of the study area and The Gearagh, a nature reserve which comprises the flooded plains of the River Lee in the south-east of the study area.

Future Baseline Conditions

The Proposed Development Site would remain as a forestry resource should this application not be taken forward. This current land use on the site will therefore remain as the future receiving environment of the Proposed Development Site.

Knocknamork and Clydaghroe Extension are consented wind farms that abut the Proposed Development Site to the south that will form part of the future landscape regardless of whether the Proposed Development is implemented or not.

Inchamore and Gortyrahilly wind farms are developments in planning within 10km of the Proposed Development Site and therefore may form part of the future landscape setting of the Proposed Development. See Figure 6-4 for cumulative sites within 30km of the Proposed Development Site.

6.4 Assessment of Effects and Mitigation

'Do Nothing' Scenario

If the Proposed Development where not to go ahead, there would be no visual or landscape effects on the environment.

Construction Effects

During construction there will be short-term effects on the landscape character and resources of the Proposed Development Site which may influence visual amenity. Direct changes will primarily occur on the Proposed Development Site.

Land take to construct the proposed turbines will be relatively small, thereby directly affecting a minor part of the existing landscape fabric which currently exists of forestry plantation. Forestry lost as part of the Proposed Development will typically be rotationally felled and restocked in the 'do nothing' scenario.

Perceived effects on the landscape character during the construction phase will result from the erection of turbines, as well as the activity and movement of large

construction vehicles / cranes within the Proposed Development Site and on localised roads.

Some activities, however, may disturb the quieter and more static qualities of the landscape character from some of the viewpoint locations and as detailed in the previous section. Ground-level operations may also be difficult to discern due to the influence of the prevailing topography and landscape resources, including forestry plantation.

The construction phase is expected to last 24 months, with the following plant and activities considered as having the greatest potential to affect landscape and visual amenity:

- Clearance of vegetation cover, felling and topsoil stripping;
- Road works and widening / construction of access tracks;
- In-situ concrete works, including formwork, shuttering and reinforcement;
- Excavations for turbine foundations / hardstandings;
- Displacement of vegetative cover for the construction compound / storage area, to facilitate construction of the Proposed Development;
- Control cabling and temporary construction compound;
- The introduction of seventeen wind turbines whose foundation and crane hardstanding areas may displace vegetation cover;
- Construction of a substation;
- Plant and vehicle movement;
- The presence of tall cranes;
- Implementation of 17 no. turbines;
- Installation of lighting associated with the turbine development.

Effects upon landscape resources in regard to the construction of the Proposed Development are considered to be short-term, with access tracks, substation and the turbines and associated foundations to remain into the operational phase.

The changes are likely to affect views close to the Proposed Development Site from where ground conditions may be discernible. These areas will be limited in extent, with any likely environmental effects reducing over time, as restoration measures take place.

If phased felling were to occur as alternative to clear felling, likely views of the Proposed Development will be predicted to less open, however due to the time taken for replanted stock to provide the same level of screening effect in terms of visual effects it is considered more appropriate to assume clear felling of the site for the purposes of assessment.

Operational Effects

The Proposed Development is predicted to result in direct and localised effects on landscape resources in the area.

The scale and nature of the Proposed Development has the potential to influence and change aspects of the character of the local and wider landscape. The turbines will add objects / structures with height and movement from some viewpoint locations where the landscape is relatively still.

From other locations where the existing baseline contains operational turbines, the Proposed Development will contribute further turbines to the landscape.

The overall effect is dependent on whether the Proposed Development is perceived to be consistent or at odds with the key baseline characteristics. This can be influenced in part by distance, screening by prevailing landform and / or vegetation structure and / or built form. Weather conditions may also influence the overall effect.

Significant effects upon visual amenity are predicted to be localised and limited.

Any likely effects attributable to the Proposed Development will be experienced within the context of a transitional landscape with other operational turbine developments present. This cumulative landscape has been taken into account in the assessment of effects, please see section 6.5 and see separate cumulative ZTV analysis in section 6.5.8.

This includes when the Proposed Development is seen in combination with Clydaghroe, Curragh, Gneeves and Coomacheo. This is primarily due to the differences in scale of the proposed turbines' rotor blade tip height and occurrences of stacking and clashing between the operational developments and the Proposed Development.

Decommissioning

The lifespan of the Proposed Development is 35 years. Following this period, the turbines and other ancillary structures will be dismantled, and the landscape reinstated / allowed to regenerate to its natural state.

It is anticipated that within a few years following decommissioning there will be little evidence of the Proposed Development besides the underground turbine foundations, substation (retained as part of the national grid infrastructure) and access tracks. The remaining infrastructure may be considered to have a negative effect on the landscape; however, this is not considered to be significant due to their minor footprint and scale within the overall landscape.

The decommissioning phase is expected to have similar, transitory landscape and visual effects to the construction period. Minor loss of pioneering vegetation that has established during the operational period may occur adjacent to access tracks following the movement of decommissioning vehicles. Following the removal of turbines and associated infrastructure, the land will be allowed to regenerate naturally, allowing the area to eventually marry into the surroundings.

Access tracks will be retained for forestry operations, which will result in beneficial effects in the longer-term, thereby maintaining access throughout the Proposed Development Site.

Decommissioning will be expected to last approximately 12 months. During this phase there may be short-term transitory, but not significant, effects due to the following plant and activities:

- Working compounds;
- Machinery and material storage
- Removal of all above-ground turbine components;
- Plant and vehicle movements; and
- Tall cranes.

The decommissioning plan can be found in Annex C of Technical Appendix 4-1 CEMP.

The Proposed Development will have a direct impact on land within the Proposed Development Site, as well as indirect landscape and visual effects within the locality and wider study area, as a result of:

- The displacement of commercial forestry in favour of renewable energy development;
- The introduction of 17 no. turbines (depicted turbine specification – Hub: 118m, Tip: 200m, and Rotor diameter :163m); and
- The introduction of access features including tracks, areas of hardstanding, lighting, substation and associated works.

Operation

Once operational, the Proposed Development will initially be notable as a new feature within the landscape and in particular, in some views where the Proposed Development encroaches into the existing skyline and above the prevailing topography.

Increased site activity, through the presence of vehicles and generation of additional traffic alongside the turbine features themselves has the potential to give rise to landscape and visual effects.

Visibility Analysis – ZTV Findings

In respect of the Proposed Development two bareground ZTVs have been prepared to illustrate the potential effects attributable which are:

- Figure 6-2a Zone of Theoretical Visibility 200m Blade Tip Height to 50km;
- Figure 6-2b Zone of Theoretical Visibility 200m Blade Tip Height to 20km;
- Figure 6-3a Zone of Theoretical Visibility 118m Hub Height to 50km; and
- Figure 6-3b Zone of Theoretical Visibility 118m Hub Height to 20km.

The ZTV does not take into account the visual screening that may be provided by the existing vegetation structure or built form and indicates theoretical visibility of the Proposed Development from 44% of the 20km study area and 28% of the 50km study area (based on blade tip ZTV figures 6-2a and 6-2b).

The Proposed Development is predicted to be openly visible, with potentially all 17 of the proposed turbines predicted to be visible in areas immediately adjacent to the site boundary.

Elevated areas to the south-east and north-east from further distances 10km and beyond are also highlighted as having potential views. Interrogation of the Hub Height and Blade Tip Height ZTVs identifies that views will be limited to partial visibility of the proposed turbines. Beyond 15km, the contextual setting of the Proposed Development is anticipated to limit any significant adverse impact.

6.5 Identification and Evaluation of Effects

6.5.1 Assessment of Landscape Effects

This section considers the effects of the Proposed Development on local landscape resources and character within the study area.

The methodology considers the sensitivity of each landscape receptor under assessment and the magnitude of change that is likely to occur as a result of the Proposed Development during construction and following completion of the development.

To inform the landscape assessment reference is made to the following LCTs and LCAs and their associated character descriptions:

- LCA 27: Clydagh River, The Paps and Derrynasaggart Mountains (County Kerry);
- LCT 15b: Ridged and Peaked Upland (County Cork) and Upper Clydagh River;
- LCT 11: Broad Marginal Middleground Valleys;
- LCT 12a: Rolling Marginal Middleground;
- LCT 13a: Valleyed Marginal Middleground; and
- LCT 16c: Glaciated Cradle Valleys.

County Cork's current Local Development Plan (2022) provides gradings in reference to Landscape Sensitivity, Value and Importance, however no description is provided as to the determining process. The most current description of LCTs from County Cork is found within their Draft Landscape Strategy (2007).

Reference is also made to the following designated areas and their associated descriptions:

- CCC High Value Landscape Area: LCT 8. Hilly River and Reservoir Valleys; and
- KCC Visually Sensitive Areas.

Effects on Landscape resources within the Proposed Development Site

The Proposed Development Site comprises primarily of coniferous forestry plantation with associated access tracks traversing between forestry compartments.

Sensitivity

The landscape within the Proposed Development Site is of high / medium susceptibility to the type of development proposed. This is due to the potential for the Proposed Development to have direct effects upon the landscape fabric within the Site, in combination with the presence of existing access tracks across the Site which serve adjacent wind energy developments and forestry plantation works within it.

Land within the Proposed Development Site is designated as a Visually Sensitive Area, it is therefore considered to be of high landscape value.

The sensitivity of Landscape Resources within the Proposed Development Site is therefore considered to be **high**.

Magnitude of Change

The felling of approximately 152ha of commercial forestry will be carried out to accommodate the Proposed Development, including new human-made features,

such as areas required for turbines and foundations, access tracks, hardstands, a substation and met mast. Following this, new structures, most notably 17 proposed turbines, will be constructed on the Site. This will have a notable and direct effect on the landscape resources within the Proposed Development Site. This will in turn give rise to a **high** magnitude of change across all stages of development.

Significance of Residual Effects

Significant effects are therefore predicted on landscape resources as a result of the Proposed Development.

Cumulative Landscape Effects

Within the Proposed Development Site boundary potential ancillary works for Knocknamork (ABP Case References: 314275, 317406) and Gortyrahilly (ABP Case Reference: 314602) will pass within the Proposed Development site boundary. Potential cumulative effects are likely to include the combined effects upon the landscape fabric.

It is considered likely that the above developments and the Proposed Development will, where possible utilise the same footprint and therefore minimising cumulative impacts upon the landscape.

Given the limited footprint and lack of turbines of Knocknamork and Gortahilly developments within the Proposed Development Site boundary (see Figure 6-4), the magnitude of change as a result of the combined effects of the cumulative sites and the Proposed Development is considered to be **negligible**.

Cumulative effects upon landscape resource within the Proposed Development Site are considered to be **imperceptible**.

6.5.2 Effects on Landscape Character

LCA 27: Clydagh River, The Paps and Derrynasaggart Mountains

The proposed changes within the Proposed Development Site will have a **direct** effect on the character of the local landscape. The effects upon the landscape character within the study area as described below in reference to LCA 27: Clydagh River, the Paps and Derrynasaggart Mountains (KCDP 2022-2028, Appendix 1) (see Figure 6-1a).

Key characteristics associated with LCA 27 are as follows:

- Steep sided valleys enclosed by high mountains;
- Small areas of pasture on the valley floor;
- Mainly characterised by peat bog and forestry, mainly coniferous;
- Wind turbines on higher ground with housing restricted to valley floors;
- Significant views from the N22 route that passes across the LCA; and
- The Visually Sensitive Area which covers most of the LCA, Views and Prospects from the N22 and the archaeological landscape of which the Paps are part off.

Within the LCA, operational turbines at Clydaghroe Wind Farm are located adjacent to the Proposed Development Site and a further number of operational turbines lie along the south western boundary of the LCA.

Sensitivity

The existing presence of man-made features including turbines, 110kV transmission line and the N22 Cork – Killarney road are well established characteristics within this landscape. The framework provided by the prevailing landform and existing vegetation within the Proposed Development Site and surrounding landscape also provide a degree of mitigation and screening. It is therefore considered to be of low susceptibility to the type of change proposed.

The value of the landscape is considered to be high due to its designation as a Visually Sensitive Area.

The LCA is therefore considered to be of **medium** sensitivity.

Magnitude of Change

During the construction phase, parts of the LCA within the Site will be directly affected by the Proposed Development and will constitute the replacement of coniferous plantation woodland to accommodate the introduction of new elements.

The resulting change will be experienced within the context of existing development within the locale including individual houses and farmsteads, the existing operational mast and other operational turbines.

It is considered that in combination with the existing elements and the siting of the proposed turbines, the Proposed Development will result in a **medium** magnitude of change across all stages of development, within localised parts of the LCA directly affected by the development.

When considering the wider extent of the LCA within the study area, the magnitude of change in landscape characteristics is much reduced overall and will be considered **low** across all stages of development.

Significance of Residual Effects

Moderate effects are predicted locally across the LCA, within the Proposed Development Site extents, across all stages of development.

Slight effects are predicted across the wider extents across all stages of development.

Cumulative Landscape Effects

A small number of operational turbines are located along the southern boundary of the LCA, with a larger number of operational and consented turbines located to the south and east of the LCA, beyond its boundaries.

The Proposed Development will connect developments at Clydaghroe and Coomacheo, Gneeves, Curragh and Caherdowney wind farms in the south-east of the LCA and immediately adjacent to its eastern boundary. This will therefore increase the prominence of wind energy development in this area of the LCA, however, given the degree of topographical containment, visibility of wind energy development across the LCA is not anticipated to increase substantially.

Given that turbines feature as a key characteristic of the LCA, the cumulative magnitude of change upon the characteristics of the LCA is determined to be low. The combination of operational turbines and the proposed turbines may increase the prevalence of wind energy in the south of the LCA but this is considered consistent with the baseline.

Slight cumulative effects on the LCA are predicted as a result of the Proposed Development.

LCTs 15b: Ridged and Peaked Upland (County Cork)

LCT 15b is located in the eastern extents of the Proposed Development Site. Land within the Proposed Development Site characterised by LCT 15b is proposed to be altered by grid connection cabling and works. Viewpoints 1, 2, 3, 4, 7, 8, 10 and 27 (see Figures 6-1-1-a to 6-1-4c, 6-1-7a-c, 6-1-8a-c, 6-1-10a-c and 6-1-27a-c) are within or on the boundary of this LCT and are considered representative of views from within / across the LCT.

In reference to CCC's Draft landscape Strategy (2007) this LCT's relevant key characteristics include (italicised quotations reference CCC's Draft Landscape Strategy (2007)):

- *"Land use, field boundaries, trees and wildlife*
  - *Comprises a rolling mountainous topography at a relatively high elevation and includes the southern slopes of the Boggeragh Mountains";*
  - *…"poor growing conditions and limited vegetation including moorland, heath and scrub;*
  - *Isolated or clusters of fields, are scattered along lower slopes, giving this landscape type a small-scale dimension, to the otherwise open moorland;*
  - *Large tracks of coniferous forestry evident particularly in upland areas;*
  - *There are patches of fertile land within the landscape;*
  - *The main agricultural practice in these upland areas is sheep farming;*
  - *Field boundaries comprise mainly stonewalls and low hedges; and*
  - *With forestry over the landscape (not blocks as in other areas). Delineated by tight gorse hedgerows, walls, banks or post and wire fencing and punctuated by a coniferous or broadleaf shelterbelts around small farmsteads.*
- *"Built environment*
  - *The farmsteads are typically located on lower ground, especially along river plains, and comprise a cluster of small buildings formed by a cottage and some out buildings;*
  - *There is a remote feel to the area with few houses mainly farm buildings; and*
  - *Individual houses are scattered around the town of Millstreet."*
- *"Ecology*
  - *The dominant pressure is forestry and there is an issue in relation to forestry management* (CCC, 2007)."

Windfarms are referenced as a "*pressure for change*" for the LCT and noted that "*their visual impact is not major*" however, the addition of more windfarms may create an "*intolerable visual impact*".

Operational turbines at Gneeves, Curragh, Caherdowney, Boggeragh 2 and Carrignaima Community wind farms are located within the LCT boundaries. A number of further operational turbines lie adjacent to the LCT boundaries to the north, east and west.

The future baseline of the LCT includes consented turbines at Clydaghroe Extension and Knocknamork that are located to the northern boundary of the LCT and potentially a

number of further turbines at Inchamore and Ballinagree developments at appeal and in-planning respectively.

Sensitivity

The LCT is described to have a medium landscape sensitivity and value by County Cork's Local Development Plan (2022). The LCT is also noted to be of County level importance.

The presence of existing wind energy development and quarrying activities across the LCT indicate it is of medium susceptibility. The Proposed Development is likely to result in direct effects upon the LCT although these are anticipated to be limited to low level / below ground works. The majority of the Proposed Development will be located immediately adjacent to the LCT.

The lack of formal designation across the LCT supports the landscape value grading as medium.

The overall sensitivity of the LCT is determined to be **medium**, with consideration of CCCs description and the sensitivity parameters of this assessment.

Magnitude of Change

The Proposed Development within the LCT is anticipated to be mostly low level / below ground works and will therefore only affect the fabric of the LCT in a minor way. Views across the LCT are likely to be marginally affected by the works within the LCT during the construction period by the movement of construction vehicles. This is not expected to have substantial effects on visual amenity and where effects occur, they will be short lived.

The proposed turbines, located adjacent to the LCT, are likely have an impact on views from the LCT across the wider area. Large construction machinery will be visible from the LCT during the construction phase. Following this, during the operational period, the proposed turbines will increase the presence of man-made infrastructure in views from the LCT.

The resulting change will be experienced within the context of existing infrastructure development within the locale where it is considered the Proposed Development will sit appropriately, including the existing operational mast and other operational turbines.

It is therefore anticipated that the magnitude of change across the LCT will be **low** across all stages of development.

Significance of Residual Effects

Slight effects are anticipated across the LCT across all stages of development.

Cumulative Landscape Effects

Potential cumulative effects upon the LCT include the increase in prominence of wind energy development in views to the north from the LCT, where the Proposed Development will be seen in combination with adjacent developments at Clydaghroe, Knocknamork, Coomacheo, Gneeves, Curragh and Caherdowney wind farms. Visual containment will, however, substantially limit the visibility of the developments.

A low magnitude of change is therefore predicted as a result of the combined landscape effects of the Proposed Development and cumulative sites within the study area.

It is not anticipated that the Proposed Development will result in significant cumulative effects in combination with adjacent cumulative sites.

Slight cumulative effects on the LCT are predicted as a result of the Proposed Development.

LCT 11 Broad Marginal Middleground Valleys (County Cork)

LCT 11 Broad Marginal Middleground Valleys is located to the north of the Proposed development Site. Potential effects upon the LCT as a result of the Proposed Development will be **indirect** as the LCT lies outwith the Site boundary.

Viewpoints 12, 13, 20 and 23 (see Figures 6-1-12a-c, 6-1-13a-c, 6-1-20a-c and 6-1-23a-c) are within or on the boundary of this LCT and are considered representative of views from within / across the LCT.

In reference to CCC's Draft landscape Strategy (2007) this LCT's relevant key characteristics include (italicised quotations reference CCC's Draft Landscape Strategy (2007)):

- *"Land use, field boundaries, trees and wildlife*
  - *The main agricultural land use is dairy farming;*
  - *Small to medium size fields bounded by mixed broadleaf hedgerows;*
  - *The hedgerows and vegetation that forms the road boundaries is of medium height and in some areas it restricts views of the surrounding landscape;*
  - *Relative evenness of terrain across the broad shallow valley of the River Blackwater, fed by several tributaries draining the higher ground to the north and south;*
  - *At higher altitudes, the ground rises relatively steeply to meet a more mountainous landscape, while lower down the ground spreads out into gently sloping fertile land; and*
  - *There are very few designated sites, i.e. SAC's, NHA's, SPA's within this landscape area."*
- *"Built Environment*
  - *Buildings comprising farmsteads, barrel roofed metal sheds, slatted sheds and individual houses are dispersed throughout the landscape. The older farmhouses are generally located a significant distance from the main road and are well screened;*
  - *Building materials include plaster and blue black tiles;*
  - *A lot of the newer dwellings display non-traditional features like Dutch gables and their front boundaries have not retained any part of the hedgerow. These new houses usually are located in a linear fashion and some are sited so as to maximise views of the surrounding landscape; and*
  - *The built heritage of the area is important within County Cork, with notable concentrations at Kanturk and Drishane. The old Convent in Newmarket and its surrounding grounds is an attractive landmark in the town."*
- *"Socio economic*
  - *Land is generally of marginal agricultural quality however dairy farming is the main land use* (CCC, 2007)*."*

With reference to pressures for change, CCC has expressed concern over cumulative effects of wind farm development in the north of the LCT, however wind farm development in the south (near where the Proposed Development is located) is not mentioned (CCC, 2007).

Operational wind energy development is confined to the boundaries of this LCT, including:

- Coomacheo Wind Farm adjacent to the Proposed Development Site;
- Kilberehert Wind Farm to the north-east;
- Carraigcannon and Boggeragh wind farms in the south-east;
- Knockacummer and Glentanemacelligot wind farms in the north-west; and
- WEDcross Wind Farm in the west.

The future baseline of the LCT includes Carrigans permitted development in the north-west of the LCT.

Sensitivity

The LCT is described to have a high landscape sensitivity and value by County Cork's Local Development Plan (2022). The LCT is also noted to be of local level importance.

As views are not noted as a key characteristic of the LCT and there is potential for indirect effects only, it is considered that the LCT is of low susceptibility to the type of development proposed.

The LCT is considered to be of high value to the local community therefore it is considered as such within this assessment.

The overall sensitivity of the LCT is determined to be **medium**, with consideration of CCC's description and the sensitivity parameters of this assessment.

Magnitude of Change

Theoretical visibility of the Proposed Development is predicted to be restricted to those views in the immediate vicinity of the Site. A break in visibility is predicted where the proposed turbines are not predicted to be visible for a linear area along the R582. Beyond this, to the centre and north of the LCT, progressively greater, yet intermittent, theoretical visibility is predicted from west to east across the LCT, with none of the proposed turbines visible in some westerly areas of the LCT, progressing to up to 17 of the proposed turbines visible in some easterly areas. Intervening topography is anticipated to substantially reduce visibility to the proposed turbine hubs in many areas beyond 5km of the Proposed Development Site (see Figure 6-3b).

Given views are not considered to be key characteristics of the LCT, it is not anticipated that the Proposed Development will have substantial effects upon the LCT across all stages of development.

During the construction phase, construction machinery, including cranes may be temporarily visible from the LCT. These indirect effects on views will be mostly confined to those in close proximity to the Proposed Development.

The resulting change will be experienced within the context of existing development within the locale including individual houses and farmsteads, the existing operational mast and other operational turbines.

It is considered that the Proposed Development will result in a **negligible** magnitude of change across all stages of development, given the restricted visibility of the proposed turbines from the LCT, the existing local context and that views are not noted as key characteristic of the LCT.

Significance of Residual Effects

Imperceptible, **indirect** effects are predicted across the LCT across all stages of development.

Cumulative Landscape Effects

Potential cumulative effects upon the LCT include the increase in prominence of wind energy development in views to the south-west from the LCT, where the Proposed Development will be seen in combination with adjacent developments at Clydaghroe, Coomacheo, Gneeves, Curragh and Caherdowney wind farms.

Cumulative effects upon the LCT are considered to be negligible. This is due to the combination of the distance at which views are likely to be afforded, the restricted nature of views as a result of intervening topography and that views are not considered key to the character of the LCT.

Imperceptible cumulative effects are predicted on the LCT as a result of the Proposed Development.

LCT 12a Rolling Marginal Middleground (County Cork)

LCT 12a Rolling Marginal Middleground is located to the south of the Proposed Development Site. Potential effects upon the LCT as a result of the Proposed Development will be **indirect** as the LCT lies outwith the Site boundary.

Viewpoints 6 and 9 (see Figures 6-1-6a-c and 6-1-9a-c) are within this LCT and are considered representative of views from within / across the LCT.

In reference to CCC's Draft landscape Strategy (2007) this LCT's relevant key characteristics include (italicised quotations reference CCC's Draft Landscape Strategy (2007)):

- "*Land use, field boundaries, trees and wildlife*
    - *It comprises rolling topography with rugged rocky ridges and Sullane River basin;*
    - *Hills forming these two basins are gently sloping, becoming somewhat steeper at lower levels and generally comprised of patchy moorland vegetation of semi-natural grassland and heather;*
    - *A mixture of small irregularly shaped fertile fields located on lower ground between scrub and rocky outcrops;*
    - *The landscape is mottled in terms of both colour and texture due to the diverse landcover, involving a mix of scrub and cultivated patches;*
    - *On wetter ground and along streams at lower altitudes willow is more prevalent and rush is common in fields of marginal agricultural quality;*
    - *Broad swaths of coniferous plantations skirt the hills mostly at lower altitudes but also on some hilltops. Extensive felling has taken place;*

- *Significant areas of broadleaf woodland including St. Gobnaits Wood which is an important old Oak woodland, a habitat listed on Annex I of the EU Habitats Directive; and*
- *Field boundaries consist of hedgerows, post and wire fencing and some stone walls."*

- "*Built environment*
  - *Roads are limited in width and wind through the rugged terrain;*
  - *Houses and farmsteads are sparsely located on lower ground. Housing does not dominate the landscape but instead fits in with the wooded areas and winding roads;*
  - *Village clusters are small and scattered, and include those at Coolea and Ballyvourney; and*
  - *Reananerree is one of the few settlements in the area*."
- "*Socio economic*
  - *This landscape type comprises a substantial component of the Muskerry Gaeltacht, which is of national significance for its linguistic, musical, educational and cultural value. This attracts tourism in the form of Irish colleges. Funding from Údarás na Gaeltachta has helped create an industrial cluster in Ballyvourney which provides exmployment for a large hinterland;*
  - *This area is located along the main Cork to Killarney road thus the area benefits from the spin-off of the passing tourist traffic; and*
  - *This landscape is valued for its scenic amenity and its expansive views and scenic routes, including the Cousane Gap* (CCC, 2007)."

With reference to pressures for change, CCC has suggests that the landscape of the LCT is not suited to wind farm development and note that views of wind farms in County Kerry are present across the LCT to the west (CCC, 2007).

CCC recommend that the existing rural character and setting of Ballyvourney, Ballymakeery and Coolea are protected by preventing large scale development that may "*undermine the attractiveness of these villages*" (CCC, 2007).

Operational turbines of Cleanrath and Derragh wind farms are located to the south of the LCT. Potential wind energy development at Gortyrahilly (in-planning) is located to the west of the LCT and has potential to form part of the future baseline of the LCT.

Sensitivity

The LCT is described to have a high landscape sensitivity and value by County Cork's Local Development Plan (2022). The LCT is also noted to be of local level importance.

The susceptibility of the LCT to the type of change proposed is considered to be high. This is due to the potential for indirect effects upon views to and from the LCT and the potential for the Proposed Development to influence the setting of settlements within the LCT.

The LCT is considered to be of high value to the local community therefore it is considered as such within this assessment.

The overall sensitivity of the LCT is determined to be **high**, with consideration of CCC's description and the sensitivity parameters of this assessment.

Magnitude of Change

Theoretical visibility of the Proposed Development is predicted to be banded across the LCT, with breaks in visibility where topography restricts views. Theoretical visibility of up to 17 of the proposed turbines is predicted in intermittent locations in the west of the LCT, reducing to theoretical visibility of up to three of the proposed turbines in the east. Topography is predicted to further limit theoretical visibility of the full turbines (see Figure 6-3b).

Given the distance and screening topography that intervenes between the Proposed Development and Ballyvourney, Balleymakery and Coolea it is not anticipated the proposed turbines will have a substantial effect upon the setting of their villages.

During the construction phase cranes involved with the construction of the turbines may be temporarily visible from the LCT.

The Proposed Development will introduce further turbines into views northward from the LCT, however it is not anticipated that they will restrict or substantially alter these views. The proposed turbines will also be seen within the context of operational turbines at the adjacent sites, including those within the Central Wind Farm Group (see Figure 6-7).

The Proposed Development is therefore predicted to result in a **low** magnitude of change on the LCT across all stages of development.

Significance of Residual Effects

Moderate, indirect effects are predicted across the LCT across all stages of development.

Cumulative Landscape Effects

Potential cumulative effects upon the LCT include the increase in prominence of wind energy development in views to the north from the LCT, where the Proposed Development will be seen in combination with adjacent developments at Clydaghroe, Knocknamork Coomacheo, Gneeves, Curragh and Caherdowney wind farms. With reference to Viewpoints 6 and 9 (see Figures 6-1-6a-c and 6-1-9a-c) the most pertinent cumulative interaction will be with the consented turbines at Knocknamork.

It is not anticipated that the combined visibility of the aforementioned developments will result in significant changes to the key characteristics of the LCT. The distance at which the developments will be viewed is considered to limit their prominence in views from the LCT and the turbines will not substantially restrict views northward from the area.

A low magnitude of change upon the key characteristics of the LCT is predicted.

Moderate cumulative effects are therefore predicted as a result of the Proposed Development.

LCT 13a Valleyed Marginal Middleground (County Cork)

LCT 13a Valleyed Marginal Middleground is located to the south-east of the Proposed development Site. Potential effects upon the LCT as a result of the Proposed Development will be **indirect** as the LCT lies outwith the Site boundary.

Viewpoints 17, 18, 21 and 22 (see figures 6-1-17a-c, 6-1-18a-c, 6-1-21a-c and 6-1-22a-c) are within this LCT and are considered representative of views from within / across the LCT.

In reference to CCC's Draft landscape Strategy (2007) this LCT's relevant key characteristics include (italicised quotations reference CCC's Draft Landscape Strategy (2007)):

- *"Land use, field boundaries, trees, and wildlife*
    - *Topographically this landscape comprises low rounded hills of old red sandstone enclosing fairly broad undulating river valleys;*
    - *The rivers are the middle to upper levels of the River Lee and Sullane River before they join together as the River Lee;*
    - *Small to medium sized fields are of marginal quality consisting of uncultivated peaty soils, and include clumps of willow, birch, heather, bracken and the occasional rock outcrop and low broadleaf hedgerows bound them. Stonewalls are a feature of the landscape in the upland areas; and*
    - *Coniferous plantations are mostly located on higher ground."*
- *"Built environment*
    - *Bungalows, farmsteads, and sheds are interspersed across the landscape and are generally well screened due to the abundance and variety of vegetation in the area."*
- *"Socio economic*
    - *Macroom town plays a defining role in this landscape character area, especially in socio economic terms. The largest settlement is the town of Macroom; and*
    - *Sheep farming is carried out in the area around Ballynagree* (CCC, 2007)."

With reference to pressures for change, CCC has suggests that north eastern areas of Macroom have potential to support wind energy development (CCC, 2007).

In regard to the impact of wind farms upon the LCT, CCC recommend that turbines will need to be sited and designed sensitivity (CCC, 2007).

Operational turbines are located at Banwmore Wind Farm in the east of the LCT. A small number of turbines included within Ballinagree in-planning development are located in the north-east of the LCT and have potential to form part of the future baseline of the LCT.

Sensitivity

The LCT is described to have a high landscape sensitivity and value by County Cork's Local Development Plan (2022). The LCT is also noted to be of County level importance.

As views are not noted as a key characteristic of the LCT and there is potential for indirect effects only, it is considered that the LCT is of low susceptibility to the type of development proposed.

The LCT is considered to be of high value at the County level therefore it is considered as such within this assessment.

The overall sensitivity of the LCT is determined to be **medium**, with consideration of CCC's description and the sensitivity parameters of this assessment.

Magnitude of Change

Theoretical visibility of the Proposed Development is predicted to fragmented across the LCT, predominantly located around central and southern areas. Up to 17 of the proposed turbines are predicted to be visible in the south-west of the LCT, with areas of theoretical visibility elsewhere limited to mostly up to nine of the proposed turbines. Topography is predicted to substantially limit the extents of the proposed turbines visible, with theoretical visibility restricted to up to six of the turbines (both hubs and blade tips) visible in limited fragmented areas in the north-east, across the centre of the LCT and areas in the south-west. Theoretical visibility elsewhere is predicted to consist of the proposed turbine blade tips only (see Figures 6-2b and 6-3b)

Given views are not considered to be key characteristics of the LCT, it is not anticipated that the Proposed Development will have substantial effects upon the LCT across all stages of development.

During the construction phase cranes involved with the construction of the turbines may be temporarily visible from the LCT.

The resulting change will be experienced within the context of the existing operational mast and other operational turbines.

It is considered that the Proposed Development will result in a **negligible** magnitude of change across all stages of development, given the restricted visibility of the proposed turbines from the LCT, the existing local context and that views are not noted as key characteristic of the LCT.

Significance of Residual Effects

Imperceptible, indirect effects are predicted across the LCT across all stages of development.

Cumulative Landscape Effects

Potential cumulative effects upon the LCT include the increase in prominence of wind energy development in views to the north-west from the LCT, where the Proposed Development will be seen in combination with adjacent developments at Clydaghroe, Knocknamork Coomacheo, Gneeves, Curragh and Caherdowney wind farms.

Given that views are not considered a key characteristic of the LCT, the distance at which views of the Proposed Development and adjacent cumulative sites are afforded and the substantial visual containment provided by local topography and vegetation the magnitude of cumulative change is considered to be **negligible**.

Imperceptible cumulative effects on the LCT are therefore predicted as a result of the Proposed Development.

LCT 16c Glaciated Cradle Valleys (County Cork)

LCT 16c Glaciated Cradle Valleys is located to the south-west of the Proposed development Site. Potential effects upon the LCT as a result of the Proposed Development will be **indirect** as the LCT lies outwith the Site boundary.

Viewpoint 11 (see Figure 6-1-11a-c) is located within of this LCT and are considered representative of views from within / across the LCT.

In reference to CCC's Draft landscape Strategy (2007) this LCT's relevant key characteristics include (italicised quotations reference CCC's Draft Landscape Strategy (2007)):

- "*Land use, field boundaries, trees and wildlife*
  - *There are few field boundaries mostly post and wire;*
  - *There are rocky outcrops on the hillside; and*
  - *There is some commercial forestry and evidence of extensive felling*."
- "*Socio economic*
  - *Significant concentrations of conifer and mixed forestry are important to the local economy as well as contributing to the local environment* (CCC, 2007)."

No operational turbines are located within this LCT. The in-planning development at Gortyrahilly has the potential to form part of the future baseline of the site should it be permitted.

Sensitivity

The LCT is described to have a medium landscape sensitivity and value by County Cork's Local Development Plan (2022). The LCT is also noted to be of local level importance.

As views are not noted as a key characteristic of the LCT and there is potential for indirect effects only, it is considered that the LCT is of low susceptibility to the type of development proposed.

The LCT is considered to be of medium value at the local level therefore it is considered as such within this assessment.

The overall sensitivity of the LCT is determined to be **medium / low**, with consideration of CCC's description and the sensitivity parameters of this assessment.

Magnitude of Change

Theoretical visibility of up to 17 of the proposed turbines is predicted across much of the LCT, with a few areas with no theoretical visibility due to the surrounding terrain (see Figures 6-2b and 6-3b).

Given views are not considered to be key characteristics of the LCT and the distance between the proposed turbines and the LCT, it is not anticipated that the Proposed Development will have substantial effects upon the LCT across all stages of development.

During the construction phase cranes involved with the construction of the turbines may be temporarily visible from the LCT.

It is considered that the Proposed Development will result in a **negligible** magnitude of change across all stages of development, given the distance of the LCT from the proposed turbines and that views are not noted as key characteristic of the LCT.

Significance of Residual Effects

Imperceptible, indirect effects are predicted across the LCT across all stages of development.

Cumulative Landscape Effects

Potential cumulative effects upon the LCT include the increase in prominence of wind energy development in views to the north-west from the LCT, where the Proposed Development will be seen in combination with adjacent developments at Clydaghroe, Knocknamork Coomacheo, Gneeves, Curragh and Caherdowney wind farms.

Given that views are not considered a key characteristic of the LCT and the distance at which views of the Proposed Development the magnitude of cumulative change is considered to be negligible.

Imperceptible cumulative effects on the LCT are therefore predicted as a result of the Proposed Development.

The table below shows a summary of the residual and cumulative effects of the Proposed Development on landscape character outlined in the section above.

Table 6-10: Summary of Effects on Landscape Character

LCA/LCT	Summary of Residual Effects	Summary of Cumulative Effects
LCA 27	**Moderate** effects are predicted locally across the LCA, within the Proposed Development Site extents, across all stages of development. **Slight** effects are predicted across the wider extents across all stages of development.	**Slight** cumulative effects on the LCA are predicted as a result of the Proposed Development.
LCT 15b	**Slight** effects are anticipated across the LCT across all stages of development.	**Slight** cumulative effects on the LCT are predicted as a result of the Proposed Development.
LCT 11	**Imperceptible, indirect** effects are predicted across the LCT across all stages of development.	**Imperceptible** cumulative effects are predicted on the LCT as a result of the Proposed Development.
LCT 12a	**Moderate, indirect** effects are predicted across the LCT across all stages of development.	**Moderate** cumulative effects are therefore predicted as a result of the Proposed Development.
LCT 13a	**Imperceptible, indirect** effects are predicted across the LCT across all stages of development.	**Imperceptible** cumulative effects on the LCT are therefore predicted as a result of the Proposed Development.
LCT 16c	**Imperceptible, indirect** effects	**Imperceptible** cumulative

LCA/LCT	Summary of Residual Effects	Summary of Cumulative Effects
	are predicted across the LCT across all stages of development.	effects on the LCT are therefore predicted as a result of the Proposed Development.

6.5.3 Effects on Landscape Designations

KCC Visually Sensitive Area

A large area of land that covers the Proposed Development Site and land to the west of the study area is designated by KCC as a Visually Sensitive Area (see Figure 6-1a).

Visually Sensitive Areas are designated by KCC as areas that "*comprise the outstanding landscapes throughout the County which are sensitive to alteration*. "*These areas are particularly sensitive to development. In these areas, development will only be considered subject to satisfactory integration into the landscape and compliance with the proper planning and sustainable development of the area.*" (KCC, 2022a). These areas are often associated with rural landscapes with dramatic features such as views or terrain, and in some cases are particularly remote.

Development within a Visually Sensitive Areas is not precluded, however it must be demonstrated "*that they integrate and respect the visual quality of the landscape*" (KCC, 2022a).

A number of operational and consented wind energy developments, and a single scoping wind energy development are located across the south-east of the Visually Sensitive Area (see Figures 6-1 and 6-4).

Sensitivity

Given the rural nature of the area, the sensitivities indicated by its designation and the potential direct effects as a result of the Proposed Development, it is considered that the KCC Visually Sensitive Area is of high susceptibility to the type of development proposed.

The high value attributed to the landscape in combination with the abovementioned susceptibility indicated that the Visually Sensitive Area is of **high** sensitivity to the type of development proposed.

Magnitude of Change

Land within the designated area that lie within the Proposed Development Site will be directly affected by the Proposed Development. This will be considered to result in a **high** magnitude of change as a result of the replacement of coniferous plantation woodland and the introduction of new elements within the Proposed Development Site. It should, however, be noted that with reference to the 'do nothing' scenario, forestry removed as a part of the Proposed Development will be rotationally felled and restocked in absence of the Proposed Development.

The resulting change will be experienced within the context of existing development within the locale including individual properties and farmsteads, the existing operational mast and other operational turbines within the locality.

It is considered that in combination with the existing elements and the careful siting of the proposed turbines, the Proposed Development will sit appropriately within the receiving landscape.

Limited theoretical visibility extends across the Visually Sensitive Area beyond the immediate vicinity of the Proposed Development. Where visible, distance and the presence of existing wind energy development will limit the visual prominence of the proposed turbines. When considering the wider extent of the Visually Sensitive Area within the study area therefore, the magnitude of change in landscape characteristics is much reduced overall and will be considered **low**.

Significance of Residual Effects

Significant effects are anticipated within the Proposed Development Site extents and immediate vicinity during the construction phase and operational phase. Across the wider extents of the Visually Sensitive Area **moderate** effects are anticipated as a result of the Proposed Development.

The Proposed Development is well sited amongst neighbouring infrastructure to form a cohesive part of the landscape. With reference to the 'do nothing' scenario, forestry removed as a part of the Proposed Development will be rotationally felled in absence of this development.

Cumulative Landscape Effects

A number of operational turbines are located along the south eastern boundary of the Visually Sensitive Area, with a further number of operational and consented turbines located beyond the Areas boundary to the east.

The Proposed Development will connect developments at Clydaghroe and Coomacheo, Gneeves, Curragh and Caherdowney wind farms in the south-east of the Visually Sensitive Area and immediately adjacent to its eastern boundary. This will therefore somewhat increase the prominence of wind energy development in this area however, given the degree of topographical containment, visibility of wind energy development across the Visually Sensitive Area as a whole is not anticipated to increase substantially.

In combination with the adjacent operational, consented and in-planning developments, the Proposed Development is anticipated to result in a **medium** magnitude of change locally due to the increase the prominence of wind energy development. Across the wider Visually Sensitive Area a **low** magnitude of change is predicted.

Moderate cumulative effects are predicted locally, and **slight** cumulative effects are predicted across the wider Visually Sensitive Area as a result of the Proposed Development.

CCC High Value Landscape Area: LCT 8. Hilly River and Reservoir Valleys

This LCT covers a large area just south of Macroom and west of Cork. At its closest point is approximately 14km south-east of the Proposed Development Site.

In reference to CCC's Draft landscape Strategy (2007) this LCT's relevant key characteristics include (italicised quotations reference CCC's Draft Landscape Strategy (2007)):

- *"Land use, field boundaries, trees, and wildlife*
  - *Landcover pattern comprises regular shaped fields of medium size, bounded by broadleaf hedgerows which are mostly low and thin. The hillsides are dominated by scrub, marginal land, bracken and gorse;*
  - *Given that the soils are generally of moderate fertility, landuse comprises mostly pasture;*
  - *The Gearagh is protected for it's wildlife value and supports the most extensive alluvial woodland in Western Europe; and*
  - *Topographically the landscape includes interweaving hills and valleys, contained by low ridges and interlocking hills, resulting in a meandering course for the River Lee, which expands and contracts between hydroelectric dams*."
- "*Built environment*
  - *There is a strong urban influence in this area due to its location close to the city and there are views of Ballincollig to the east;*
  - *Individual houses in the area are more predominant in the western part of this Landscape Character Type while to the east the houses are more established; and*
  - *The built environment has a strong character reflecting agricultural wealth."*

No operational, consented or in-planning turbines are located within this High Value Landscape Area.

Sensitivity

The LCT is described to have a high landscape sensitivity and value by County Cork's Local Development Plan (2022). The LCT is also noted to be of National level importance.

The lack of existing large infrastructure development and prominence of semi-natural features such as the River Lee and the Taiscumar Reservoir indicate the landscapes higher susceptibility to the type of change proposed. Given the distance between the Proposed Development and the High Value Landscape Area however, and that views to the wider landscape beyond the LCT are not noted within its key characteristics, the LCT is considered to be of low susceptibility within this assessment.

As the LCT is of National importance and is designated as a High Value Landscape Area, it is considered to be of high landscape value.

The overall sensitivity of the LCT is determined to be **medium**, with consideration of CCCs description and the sensitivity parameters of this assessment.

Magnitude of Change

The Proposed Development is located outside the LCT boundaries and therefore is only likely to influence visual amenity from the LCT. Although views from the LCT will have

some impact on appreciation of the landscape, they are not noted as key characteristics that define the LCT.

The Proposed Development is therefore anticipated to result in a **negligible** magnitude of change within the LCT. This is because the Proposed Development is unlikely to alter key characteristics of the LCT.

Significance of Residual Effects

Imperceptible, indirect effects on the LCT are anticipated across all stages of development.

Cumulative Landscape Effects

Potential cumulative effects upon the LCT include the increase in prominence of wind energy development in views to the north-west from the LCT, where the Proposed Development will be seen in distant views in combination with adjacent developments at Clydaghroe, Knocknamork Coomacheo, Gneeves, Curragh and Caherdowney wind farms.

Given that views are not considered a key characteristic of the LCT and the distance at which views of the Proposed Development the magnitude of cumulative change is considered to be negligible.

Imperceptible cumulative effects on the LCT are therefore predicted as a result of the Proposed Development.

The table below presents a summary of the residual and cumulative effects on landscape designations outlined in the section above.

Table 6-11: Summary of Residual and Cumulative effects on Landscape Designations

Landscape Designation	Summary of Residual Effect	Summary of Cumulative Effect
KCC Visually Sensitive Area	**Significant** effects are anticipated within the Proposed Development Site extents and immediate vicinity during the construction phase and operational phase. Across the wider extents of the Visually Sensitive Area **moderate** effects are anticipated as a result of the Proposed Development.	**Moderate** cumulative effects are predicted locally, and **slight** cumulative effects are predicted across the wider Visually Sensitive Area as a result of the Proposed Development.
LCT 8	**Imperceptible**, **indirect** effects on the LCT are anticipated across all stages of development.	**Imperceptible** cumulative effects on the LCT are predicted as a result of the Proposed Development.

6.5.4 Assessment of Visual Effects

The table below reviews visual receptors within the study area and potential effects they may experience as a result of the Proposed Development. Please note, where visibility is mentioned, it is in reference to visibility of the Proposed Development within the study area unless otherwise specified. Bareground ZTV data shown in Figure 6-2b have been utilised in identifying visual receptors that require further assessment.

Where settlements and routes are located beyond 20km from the Proposed Development it is not considered likely that the Proposed Development will have significant effects upon visual amenity of receptors. This is due to a combination of factors including:

- The attenuation of visual prominence across such a distance using the naked eye;
- The speed at which road users will be travelling; and
- The built-up nature of settlements providing screening to outward views, in addition to other intervening features such as vegetation which are also likely to fragment views at such distances.

Table 6-12: Assessment of Visual Effects

Visual Receptor	Location in study area	Is this receptor taken forward in the assessment? (Including reasoning)
Settlements		
Ballyvourney / Ballymakeery	South of the study area	Yes – visibility of between four and six turbines is predicted across much of the settlement which lies approximately 5km from the Proposed Development.
Macroom	East of the study area	Yes – patches of visibility of one to six turbines is predicted across the settlement which lies approximately 17km from the Proposed Development.
Inchigeelagh	South of the study area	No – no visibility is predicted across the settlement.
Millstreet	North-east of the study area	Yes – visibility is predicted for the eastern extents of the settlement which lies approximately 8km from the Proposed Development.
Boherbue / Boherboy	North of the study area	Yes – visibility is predicted for approximately seven to nine turbines across the settlement which lies approximately 18km from the Proposed Development.
Rathmore	North of the study area	No – no visibility is predicted across the settlement.
Ballaugh Hill	West of the study area	No – no visibility is predicted across the settlement.
Kilgarven	West of the study area	No – no visibility is predicted across the settlement.
Ballingeary	South-west of the study area	No – no visibility is predicted across the settlement.
Inchigeelagh	South of the study area	No – no visibility is predicted across the settlement.
Sequential routes		
Vehicular routes		

Visual Receptor	Location in study area	Is this receptor taken forward in the assessment? (Including reasoning)
N22	Traverses almost the full distance of the study area from north-west to south-east.	Yes – long sections of predicted visibility close to the Proposed Development Site, with more sporadic visibility predicted across the remainder of the route.
N72	Traverses the study are from west to east, just north of the Proposed Development site.	Yes – long sections of visibility are predicted along the route as it leaves the study area in the north-east.
R569	West of the study area	No – no visibility is predicted from this route.
R584	West of the study area	Yes – a small patch of visibility is predicted as the route travels between Kilbarry and Toonsbridge.
R587	South of the study area	Yes – A substantial section of this route has predicted visibility of one to twelve turbines.
R618	East of the study area	No – limited visibility is predicted for this route. Where visibility is predicted users will be navigating a number of junctions and therefore will be heavily focused on the road ahead. The Proposed Development is consequently not anticipated to substantially effect the views of road users.
R582	North east of the study area	Yes – long sections of visibility are predicted along this route as it travels to the east of the Proposed Development site.
R583	North east of the study area	Yes – visibility is predicted for much of this route.
R577	North of the study area	Yes – fragmented visibility is predicted for much of this route.
R570	West of the study area	No – no visibility is predicted along this route
Recreational routes		
CCC Scenic Routes S33 and S32	South of the study area	Yes – long sections of visibility are predicted along this route.
CCC Scenic Route S35	South of the study area	Yes – a long section of visibility is predicted along this route.
CCC Scenic Route S26	South of the study area	Yes – long sections of visibility are predicted along this route.
CCC Scenic Route S23	South of the study area	Yes – long sections of visibility are predicted along this route.
CCC Scenic Route S22	South of the study area	Yes – visibility is predicted in close proximity at the start and end of this route.
CCC Scenic Route S25	South-west of the study area	Yes – a long section of visibility is predicted along this route.
CCC Scenic Route S24	South-west of the study area	Yes – long sections of visibility are predicted along this route.
CCC Scenic Route S27	South-west of the study area	No – no visibility is predicted along this route

Visual Receptor	Location in study area	Is this receptor taken forward in the assessment? (Including reasoning)
CCC Scenic Route S28	South-west of the study area	No – no visibility is predicted along this route
CCC Scenic Route S37	South-east of the study area	Yes – visibility is predicted at the start this route from Macroom and where this route leaves the study area.
CCC Scenic Route S21	East of the study area	Yes – Visibility of one to three turbines is predicted along the middle of this route.
CCC Scenic Route S20	East of the study area	Yes – long sections of visibility are predicted along this route.
CCC Scenic Route S18	East of the study area	Yes – long sections of visibility are predicted along this route.
KCC Views and Prospects on N22 adjacent to local hill Doire Réidh	Adjacent to the western Proposed Development Site Boundary	Yes – visibility of one to three turbines is predicted from part of this route.
KCC Views and Prospects on road adjacent to Lough Guitane looking south	West of study area	No – no visibility is predicted from this route.
KCC Views and Prospects on R570 adjacent to local hill Shronedarragh looking east	North-west of the study area	No – no visibility is predicted from this route.
KCC Views and Prospects on road to Kilgarvan from N22 looking in both directions and adjoining road towards County Cork	South-west of the study area	No – no visibility is predicted from this route.
KCC Views and Prospect on road south of Kilgarvan looking east	South-west of the study area	No – no visibility is predicted from this route.

6.5.5 Effects on Settlements

Ballyvourney / Ballymakeery

Ballyvourney / Ballymakeery is a small settlement located approximately 5km south of the Proposed Development. Lying within the remit of CCC, the N22 runs north-west to south-east through centre of the settlement with properties generally organised in a linear arrangement with north-south orientation adjacent to the road. Local roads that intersect the N22 are occasionally lined with properties orientated east-west.

The settlement is located along the valley floor and therefore typical views from the settlement include the adjacent hillsides beyond its built form and streetscape vegetation.

Operational developments to the north of the settlement are visible to a small extent in some locations across the settlement.

Views from the settlement are broadly represented by Viewpoint 06 (see Figures 6-1-6a-c).

Sensitivity

It is considered that residents of Ballyvourney / Ballymakeery are of high susceptibility to the type of change proposed. This is due to their prolonged viewing opportunity and interest in their surroundings, in addition to the contribution that views from the surrounding area makes to the setting of the settlement.

The value of views from the settlement are considered to be medium. This is due to relatively rural, yet undesignated views from the settlement.

The sensitivity of receptors of the settlement to the type of development proposed is therefore considered to be **high / medium**.

Magnitude of Change

Scrutiny of the ZTVs (see Figures 6-2a to 6-3b) identifies visibility of up to approximately six of the proposed turbines across much of the settlement. This is likely to be limited to the blade tips only of three turbines and the hubs and blade tips of a further three turbines. Viewing opportunities of the Proposed Development will be fragmented and restricted by intervening vegetation and buildings not accounted for in the ZTVs.

There is potential for construction vehicles, such as cranes, to be visible from the settlement during the construction phase although it is anticipated that visibility will be fragmented. Following completion, partial views of the proposed turbines are likely from the settlement. Buildings and vegetation of the settlement and surrounding landscape may somewhat screen views for visual receptors.

The magnitude of change afforded by the Proposed Development is therefore anticipated to be **medium** during the construction phase, reducing to **low** during the operational phase.

Significance of Residual Effects

Moderate effects are predicted as a result of the Proposed Development during the construction phase, reducing to **slight** during the operational phase.

Cumulative Landscape Effects

Operational, consented, in-planning and appealed developments are predicted to be theoretically visible in combination and / or succession from the south, south-west and central cumulative groups (see Figures 6-5, 6-6, 6-7, 6-11 and 6-12).

Given the level of screening provided by local built form and vegetation it is considered that cumulative interactions are likely to be mostly restricted to those between the Proposed Development and adjacent operational and consented developments. This includes the consented turbines of Knocknamork, the operational turbines at Clydaghroe and the operational Mullaghanish Mast. The most notable interaction will be between the proposed turbines and the consented turbines at Knocknamork, where the proposed turbines will form a cohesive part of the future baseline, with only minor clashing occurring between turbines. The additional effects of the Proposed Development are considered to be low as they will not increase the field of view which contains turbines and will generally align to the future baseline.

Slight cumulative effects are predicted upon the settlement of Ballyvourney / Ballymakeery.

Macroom

Macroom is a market town located approximately 17km to the east of the Proposed Development Site. Lying within the remit of CCC, the R618 runs west to east through the settlement with the new N22 bypass travelling to the north of the settlement. Properties are typically orientated north-south or east-west across the town with a number of local roads feeding off the main road (N22) that acts as the spine of the town.

The settlement is located along the valley floor encroaching onto low hillsides and therefore views from properties are anticipated to be of hillsides if not of adjacent buildings and vegetation.

Sensitivity

It is considered that residents of Macroom are of high susceptibility to the type of change proposed. This is due to their prolonged viewing opportunity and interest in their surroundings, in addition to the contribution that views from the surrounding area makes to the setting of the settlement.

The value of views from the settlement are considered to be medium. This is due to views from the settlement being relatively contained by built form.

The sensitivity of receptors of the settlement to the type of development proposed is therefore considered to be **high / medium**.

Magnitude of Change

Scrutiny of the ZTVs (see Figures 6-2a to 6-3b) identifies visibility of up to approximately three of the proposed turbines from the eastern and western extents of the settlement. Further visibility is predicted for a small number of receptors to the south of the R618 of up to six turbines. Viewing opportunities of the Proposed Development will be fragmented and restricted by intervening vegetation and buildings not accounted for in the ZTVs. Viewpoints 17 and 22 are broadly representative of views towards the Proposed Development from the settlement (see Figures 6-1-17-a-c and 6-1-22-a to c).

Given the distance from the Proposed Development Site, intervening topography and the angle at which views are afforded, visibility from Macroom will be limited. Where visible the Proposed Development Site will be at some distance, and it is likely only fragmented visibility will be possible.

The magnitude of change afforded by the Proposed Development Site is therefore anticipated to be **negligible** across all stages of development.

Significance of Residual Effects

Imperceptible effects are anticipated across the settlement of Macroom as a result of the Proposed Development across all stages of development.

Cumulative Landscape Effects

Fragmented theoretical visibility of operational, consented, in-planning and appealed developments in combination and / or succession from the south, south-west, east and central cumulative groups (see Figures 6-5, 6-6, 6-7, 6-9, 6-10, 6-11 and 6-12).

Given the distance at which the nearest cumulative site and the Proposed Development lies from Macroom, a negligible magnitude of change is predicted.

Imperceptible cumulative effects are predicted upon the settlement of Macroom across all stages of development.

Millstreet

Millstreet is a town located approximately 8km north-east of the Proposed Development Site. Within the remit of CCC, the settlement is built primarily around the R583 which travels east to west through the centre before travelling north-east out of the settlement. Properties generally front onto this road, with a north-south orientation. Where the road heads north-east properties follow the lie of the road and orientate north-west-south-east.

The landform of the town is gently undulating and views towards the Proposed Development Site will be heavily screened by the intervening Claragh Mountain.

Sensitivity

It is considered that residents of Millstreet are of high susceptibility to the type of change proposed. This is due to their prolonged viewing opportunity and interest in their surroundings, in addition to the contribution that views from the surrounding area makes to the setting of the settlement.

The value of views from the settlement are considered to be medium. This is due to views from the settlement being relatively contained by built form and the rural, undesignated nature of outward view where afforded.

The sensitivity of receptors of the settlement to the type of development proposed is therefore considered to be **high / medium**.

Magnitude of Change

Scrutiny of the ZTVs (see Figures 6-2a to 6-3b) identifies visibility of up to approximately three of the proposed turbines from the eastern extent of the settlement. Viewing opportunities of the Proposed Development will be fragmented and restricted by intervening vegetation and buildings not accounted for in the ZTVs. Viewpoint 8 is broadly representative of views towards the Proposed Development from the periphery of the settlement (see Figures 6-1-8-a to c).

Visibility of the Proposed Development from Millstreet is anticipated to be greatly restricted and is likely to be out of the view lines from most areas of the settlement. Properties that lie to the periphery of the settlement, including those along the Macroom Road and some properties around Altamount have potential to experience views of the Proposed Development. These views are anticipated to be limited to fragmented views of the Proposed Development as a result of intervening topography.

A **negligible** magnitude of change is predicted across the settlement of Millstreet as a result of the Proposed Development.

Significance of Residual Effects

Imperceptible effects are predicted across Millstreet as a result of the Proposed Development across all stages of development.

Cumulative Landscape Effects

Theoretical visibility of the Proposed Development in combination with cumulative sites in the central, north and east is predicted to be limited to the eastern extents of the settlement (see Figure 6-7 to 6-10).

Distant views of the central cumulative group in combination with the Proposed Development are likely to result in a negligible magnitude of change to setting of the

settlement. This is due to the limited theoretical visibility of the developments from the settlement, that the Proposed Development will result in limited stacking, and where visible the proposed turbines will be contained within the existing extents of operational wind energy development in views from Millstreet.

Imperceptible cumulative effects are predicted across Millstreet across all stages of development.

Boherbue / Boherboy

Boherbue / Boherboy is a small settlement located approximately 18km to the north of the Proposed Development Site. Within the remit of CCC, the settlement is built primarily around the intersection of the R577 and L1109 on gently sloping ground. Properties are typically orientated north-south.

Sensitivity

It is considered that residents of Boherbue / Boherboy are of high susceptibility to the type of change proposed. This is due to their prolonged viewing opportunity and interest in their surroundings, in addition to the contribution that views from the surrounding area makes to the setting of the settlement.

The value of views from the settlement are considered to be medium. This is due to views from the settlement being relatively contained by built form and the rural, undesignated nature of outward view where afforded.

The sensitivity of receptors of the settlement to the type of development proposed is therefore considered to be **high / medium**.

Magnitude of Change

Scrutiny of the ZTVs (see Figures 6-2a to 6-3b) identifies visibility of up to approximately nine of the proposed turbines on the south-eastern side of the settlement. Viewing opportunities of the Proposed Development will be fragmented and restricted by intervening vegetation and buildings not accounted for in the ZTVs.

Views of the Proposed Development Site will be at some distance and most likely screened to an extent by vegetation and buildings in the locale of the town.

The magnitude of change as a result of the Proposed Development is therefore anticipated to be **Negligible**.

Significance of Residual Effects

Imperceptible effects on the settlement of Boherbue / Boherboy are predicted as a result of the Proposed Development across all stages of development.

Cumulative Landscape Effects

Visibility of the Proposed Development in combination with cumulative sites in the central, north and east is predicted to be limited to the eastern extents of the settlement (see Figure 6-7 to 6-10).

Distant views of the central cumulative group in combination with the Proposed Development are likely to result in a negligible magnitude of change to setting of the settlement. This is due to the attenuation of views due to distance from the developments.

Imperceptible cumulative effects are predicted across Boherbue / Boherboy across all stages of development

6.5.6 Effects on Vehicular Routes

N22

The N22 is a National Primary cross-country road that travels from Tralee in the east to Cork in the west of Ireland. Crossing the study area north-west to south-east, the road travels past the far western point of the Proposed Development Site Boundary. Within the study area, the route is covered by a KCC View and Prospect and two CCC Scenic Routes (S23 and S37). A short section of the road is located within a KCC Visually Sensitive Area. Views from the road are represented by Viewpoints 2, 3, 6 and 22 (see Figures 6-1-2-a to 6-1-3-c, 6-1-6-a-c and 6-1-22-a to c). At its closest point the route travels within approximately 3.4km of the nearest proposed turbine.

A new 8km section of the N22 has recently been added to the route, diverting traffic around Macroom to reduce road pressures within the town.

Cumulative ZTV mapping (see Figures 6-5 to 6-12) indicates visibility of a number of operational, consented, in-planning and appealed wind farms. Most notably from the Central Wind Farm Group (see Figure 6-7) and the south-west wind farm group (see Figure 6-5 and 6-6).

Sensitivity

The N22 is a major road and for the most part has a high-speed limit; therefore, road users focus will be mostly on the road ahead and speeds will be too high to allow great interest in their surroundings. The susceptibility of road users of the N22 is therefore considered to be low.

Sections of the road are designated as Scenic Routes and Views and Prospects, whilst other sections remain undesignated. The value of the views from the road are therefore considered to be high / medium. A more focused assessment of effects upon these designated routes are considered in more detail below (see Recreational Routes).

The sensitivity of road users of the N22 is therefore **medium**.

Magnitude of Change

Fragmented theoretical visibility of up to approximately 12 of the proposed is predicted along the route mostly within 10km of the Proposed Development Site (see Figures 6-2a to 6-3b). Users travelling north-west from Macroom are predicted to experience fragmented visibility of up to 12 of the proposed turbines, typically one to six of the proposed turbines and mostly limited to blade tips only, as they approach Proposed Development Site. Once users have passed the western boundary of the Proposed Development Site, visibility of the Proposed Development will be behind the direction of travel. Users travelling south-east from Killarney are anticipated to experience visibility of the Proposed Development at oblique angles until they leave Ballyvourney / Ballymakeery at which point the Proposed Development will be behind the direction of travel.

Further interrogation of potential visibility using the hub ZTVs (see Figure 6-3b) and Viewpoint wirelines and photomontages along the route identifies that actual visibility will be greatly restricted by intervening vegetation and topography.

There is potential for construction machinery, including tall cranes, to be visible to road users during the construction phase, in addition to the increase in road activity around the Site. This will introduce noticeable man-made features into views from the route however, their presence will be short-lived and replaced with views of the turbines which will sit alongside the existing wind farm context following construction.

Given the typical angle at which views of the Proposed Development will be achieved, existing wind energy development visible from the route and screening elements the magnitude of change for road users of the N22 is anticipated to be **low** across all stages of development.

Significance of Residual Effects

Slight effects on road users of the N22 are predicted as a result of the Proposed Development across all stages of development.

Cumulative Landscape Effects

The Proposed Development will marginally increase visibility of turbines from this route. The proposed turbines are predicted to be visible in sequence along the route with turbines within all cumulative groups, most notably with turbines in the south-west and south groups (see Figures 6-5 to 6-12). Combined / successional visibility of the proposed turbines and turbines within the central group is predicted along much of the road within the study area (see Figure 6-7).

Actual visibility is predicted to be limited by screening elements such as topography and visibility (see Viewpoints 2, 3, 6 and 22, Figures 6-1-2a-c, 6-1-3a-c, 6-1-6a-c and 6-1-22a-c), and views are likely to be fleeting given the speed of the road for much of the route. The magnitude of change afforded by the Proposed Development in combination with cumulative wind energy developments is predicted to be negligible.

Imperceptible cumulative effects are predicted upon road users of the N22 across all stages of development.

N72

The N72 is a National Secondary Road that travels east from Lis Daire on the outskirts of Killarney to join the N25 just north of Dungarvan outwith the study area. The road begins in the west of the study area and leaves the study area in the east. Views from a section of the road are broadly represented by Viewpoint 13 (see Figure 6-1-13a-c). At its closest point, the road travels within approximately 9.2km of the nearest proposed turbine.

Cumulative ZTV mapping (see Figures 6-5 to 7-9) indicates visibility of many of the assessed operational and consented cumulative wind farm sites.

Sensitivity

The N72 is a National Secondary Road and for the most part has a high-speed limit, therefore road users focus will be mostly on the road ahead and speeds will be too high to allow great interest in their surroundings. The sensitivity of road users of the N72 is therefore **negligible.**

Magnitude of Change

Theoretical visibility of the Proposed Development is predicted for an approximately 13.0km section of the route just east of Rathmore to just east of Roskeen (outwith the

detailed study area). Where visibility is afforded along this route it will be as road users travel east to west at oblique angles to the direction of travel. Visibility will be behind the direction of travel for users traveling in the opposite direction.

Users will be over 10km from the Proposed Development Site where visibility of the Proposed Development is predicted. Views will therefore be distant, and the Proposed Development will be seen as part of the existing wind farm baseline. Screening from roadside vegetation and intervening vegetation is anticipated to further restrict visibility.

There is potential for construction machinery, including tall cranes, to be visible to road users during the construction phase. This will introduce noticeable human-made features in views from the route; however, their presence will be short-lived and replaced with views of the turbines, which will sit alongside the existing wind farm context following construction.

The magnitude of change as a result of the Proposed Development is considered to be **low** across all stages of development.

Significance of Residual Effects

No significant effects on road users of the N72 are predicted as a result of the Proposed Development across all stages of development.

Cumulative Landscape Effects

The proposed turbines are predicted to be visible in sequence, successional and / or combination along the route with turbines within all cumulative groups (including occasional sequential views with the south-west group), most notably with turbines in the east, north and central groups (see Figures 6-5 to 6-12).

Actual visibility is predicted to be limited by distance (see Viewpoints 13, Figure 6-1-13a-c) and screening topography. Afforded visibility is also likely to be fleeting, given the speed of the road for much of the route. The magnitude of change afforded by the Proposed Development in combination with cumulative wind energy developments is predicted to be negligible.

Imperceptible cumulative effects are predicted upon road users of the N72 across all stages of development.

R584

The R584 is a Regional, single-carriageway road that travels west from Coolcower Court (just south of Macroom) and continues to Ballylickey beyond the study area. A very short section of the route is covered by a CCC High Value Landscape; no visibility of the Proposed Development is predicted from this section of the route. At its closest point, the road travels within approximately 14.6km of the nearest proposed turbine.

Cumulative ZTV mapping (see Figures 6-5 to 6-12) indicates fragmented visibility of many of the assessed operational, consented, in-planning and appealed cumulative wind farm sites, most notably the South-west Wind Farm Group (see Figure 6-5 and 6-6).

Sensitivity

The R584 is a Regional Road and for the most part has a medium-speed limit, therefore road users' focus will be mostly on the road ahead although some capacity will be given to appreciate the surrounding environment. The susceptibility of road users to the type of development proposed is therefore considered to be medium.

The road passes through predominantly rural landscapes, approximately 7km of the route passes through a CCC High Value Landscape. The value of views from the route are therefore considered to be high / medium.

The sensitivity of road users along the R584 is therefore considered to be **medium**.

Magnitude of Change

Theoretical visibility of approximately seven to nine of the proposed turbines is predicted for approximately 2.7km either side of Kilbarry. Much of this section of the route, however, is bounded by roadside vegetation, including hedgerows and trees, which screens much of the views towards the Proposed Development Site. Visibility of the Proposed Development from this route is therefore anticipated to be greatly limited.

Where visible, view of the Proposed Development Site during the construction phase will include construction machinery such as cranes. These are not anticipated to be substantially more visible from the route than the operational turbines.

The magnitude of change as a result of the Proposed Development is considered to be **negligible** across all stages of development.

Significance of Residual Effects

Imperceptible effects on road users of the R584 are predicted as a result of the Proposed Development across all stages of development.

Cumulative Landscape Effects

Limited theoretical visibility predicts fragmented combined, successional and occasional sequential visibility of the proposed turbines and south, south-west, east and central cumulative groups (see Figures 6-5 to 6-7 and 6-9 to 6-12).

Actual visibility is predicted to be limited by distance and to fleeting views due to the speed of the road. The magnitude of change afforded by the Proposed Development in combination with cumulative wind energy developments is predicted to be negligible.

Imperceptible cumulative effects are predicted upon road users of the R584 across all stages of development.

R587

The R587 is a Regional Road located in the south of the study area. The road travels north to south and connects Toonsbridge with Longbridge. An approximately 0.4km section of the route is covered by a CCC High Value Landscape; no visibility of the Proposed Development is predicted from this section of the route. At its closest point the road travels within approximately 15.3km of the nearest proposed turbine.

Cumulative ZTV mapping (see Figures 6-5 to 6-12) indicates visibility of many of the assessed operational, consented, in-planning and appealed cumulative wind farm sites along the route.

Sensitivity

The R587 for the most part has a medium-speed limit; therefore, road users' focus will be mostly on the road ahead, although some capacity will be given to appreciate the surrounding environment. The susceptibility of road users to the type of development proposed is therefore considered to be medium.

The road passes through predominantly rural landscapes. A short section of the route is designated as a CCC High Value Landscape; however, this section is not anticipated to have any visibility of the proposed turbines. The value of views from the route is therefore considered to be medium.

The sensitivity of road users along the R587 is therefore considered to be **medium**.

Magnitude of Change

Theoretical visibility is predicted for up to approximately nine of the proposed turbines along a section of the route as users travel just east of Dromcarra and continue just south of Kilmichael. Visibility will be at oblique angles from over 5km distance for users as they travel roughly north along the road. Intervening vegetation will provide some screening to views, restricting visibility of the Proposed Development.

Where visible, views of the Proposed Development Site during the construction phase will include construction machinery such as cranes. These are not anticipated to be substantially more visible from the route than the operational turbines.

The magnitude of change as a result of the Proposed Development is considered to be **negligible** across all stages of development.

Significance of Residual Effects

Imperceptible effects on road users of the R587 are predicted as a result of the Proposed Development across all stages of development.

Cumulative Landscape Effects

Limited theoretical visibility is predicted, with combined / successional and sequential visibility of the proposed turbines and turbines of the south, south-west, east and central cumulative groups (see Figures 6-5 to 6-7 and 6-9 to 6-12).

Actual visibility is predicted to be limited by distance. It is not anticipated that the proposed turbines will substantially alter the cumulative baseline or result in substantial cumulative interactions at such a distance. The magnitude of change afforded by the Proposed Development in combination with cumulative wind energy developments is therefore predicted to be negligible.

Imperceptible cumulative effects are predicted upon road users of the R587 across all stages of development.

R582

The R582 is a Regional Road that travels from Macroom in the south-east of the study area, northward to meet the R577 just south of Ballydesmond. A short section of this route is covered by a CCC Scenic Route (S21). Views from the section of the road covered by S21 are broadly represented by Viewpoint 7 (see Figures 6-1-7a-c). At its closest point the road travels within approximately 5.1km from the nearest proposed turbine.

Cumulative ZTV mapping (see Figures 6-5 to 6-12) indicates visibility of many of the assessed operational, consented, in-planning and appealed cumulative wind farm sites along the route.

Sensitivity

The R582 for the most part has a medium speed limit; therefore, road users' focus will be mostly on the road ahead, although some capacity will be given to appreciate the surrounding environment. The susceptibility of road users to the type of development proposed is therefore considered to be medium.

The route is partially covered by a CCC Scenic Route and therefore the value of views from this section are considered to be greater. The value of views from the route overall are therefore considered to be high / medium. Potential effects on these designated routes are assessed in more detail below (see Recreational Routes).

Sensitivity of road users of the R582 is therefore considered to be **medium**.

Magnitude of Change

Fragmented theoretical visibility is predicted of up to approximately six turbines (predominantly one to three) across the route as it travels through the study area. Views of the proposed turbines from the route are predicted to be limited mostly to blade tips only (see Figure 6-3b). As users travel towards the Proposed Development Site from Macroom, views, where possible, will be at oblique and perpendicular angles. Once users pass the eastern boundary of the Proposed Development Site, views will be behind the direction of travel.

For users travelling south from Ballydesmond, views of the Proposed Development Site will be ahead of the direction of travel. Visibility for users travelling in this direction are predicted until users reach Knocknagree, and therefore will be from over 10km away. The next patch of visibility for users travelling southward is as users leave Millstreet. Views from here will be at oblique angles where visibility is predicted. Once users pass the eastern boundary of the Site views of the Proposed Development will be behind the direction of travel.

Localised topography, intervening vegetation and roadside vegetation are anticipated to further screen views relative to visibility predicted by the ZTVs. As a result, actual visibility is anticipated to be limited.

There is potential for construction machinery, including tall cranes, to be visible to road users during the construction phase. This will introduce noticeable human-made features in views from the route; however, their presence will be short-lived and replaced with views of the turbines, which will sit alongside the existing wind farm context following construction.

The magnitude of change as a result of the Proposed Development is considered to be **negligible** across all stages of development.

Significance of Residual Effects

Imperceptible effects on road users of the R582 are predicted as a result of the Proposed Development across all stages of development.

Cumulative Landscape Effects

The proposed turbines are predicted to be visible in sequence, succession and / or combination along the route with turbines within all cumulative groups (see Figures 6-5 to 6-12).

Actual visibility is predicted to be limited by intervening topography (see Viewpoints 7, Figure 6-1-7a-c) and vegetation along the road. The magnitude of change afforded by

the Proposed Development in combination with cumulative wind energy developments is predicted to be negligible.

Imperceptible cumulative effects are predicted upon road users of the R582 across all stages of development.

R583

The R583 is a Regional Road that travels north-east from Millstreet to join the N72 near Dromagh. At its closest point the road passes within approximately 8.3km of the nearest proposed turbine.

Cumulative ZTV mapping (see Figures 6-5 to 6-12) indicates visibility of many of the assessed operational, consented, in-planning and appealed cumulative wind farm sites along the route.

Sensitivity

The R583 for the most part has a medium-speed limit; therefore, road users' focus will be mostly on the road ahead, although some capacity will be given to appreciate the surrounding environment. The susceptibility of road users to the type of development proposed is therefore considered to be medium.

The route travels across a rural landscape that is undesignated but is considered to be of value to the local community. The value of views from the route overall are therefore considered to be medium.

Sensitivity of road users of the R583 is therefore considered to be **medium**.

Magnitude of Change

Theoretical visibility of up to approximately six of the proposed turbines is predicted for road users as they travel from Dromagh south towards Millstreet. Where views of the proposed turbines are afforded, they will be ahead in road users' field of view. Intervening vegetation, in addition to roadside vegetation, will greatly restrict views towards the Proposed Development. Visibility of the proposed turbines for road users travelling in the opposite direction is not anticipated, as the Proposed Development will be behind the direction of travel. It is therefore considered that actual visibility of the Proposed Development from this road is limited.

Where visible, view of the Proposed Development Site during the construction phase will include construction machinery such as cranes. These are not anticipated to be substantially more visible from the route than the operational turbines.

The magnitude of change for road users of the R583 as a result of the Proposed Development is considered to be **negligible** across all stages of development.

Significance of Residual Effects

Imperceptible effects on road users of the R583 are predicted as a result of the Proposed Development across all stages of development.

Cumulative Landscape Effects

The proposed turbines are predicted to be theoretically visible mostly in combination / succession, and in some instances in sequence, with cumulative developments in the central, north and east groups.

Actual visibility is likely to be substantially limited by topography and vegetation, and combined with the attenuation of effects due to the distance at which views will be afforded and the speeds of travel, the magnitude of change is predicted to be negligible.

Imperceptible cumulative effects are predicted upon road users of the R583 across all stages of development.

R577

The R577 is a Regional Road that leaves Castleisland in the north-west of the study area and heads south-east to join the N72 at Cloonbannin Cross. Part of the route is covered by a KCC Views and Prospects route in the north-west of the study area. At its closest point the road travels within approximately 16.6km of the nearest proposed turbine.

Cumulative ZTV mapping (see Figures 6-5 to 6-12) indicates visibility of many of the assessed operational, consented, in-planning and appealed cumulative wind farm sites along the route.

Sensitivity

The R577 for the most part has a medium-speed limit, therefore road users' focus will be mostly on the road ahead, although some capacity will be given to appreciate the surrounding environment. The susceptibility of road users to the type of development proposed is therefore considered to be medium.

The route is partially covered by a CCC Scenic Route and therefore the value of views from this section is considered to be greater. The value of views from the route overall is therefore considered to be high / medium. Effects on these designated routes are considered in more detail below (see Recreational Routes).

Sensitivity of road users of the R577 is therefore considered to be **medium**.

Magnitude of Change

Fragmented theoretical visibility is predicted of up to approximately nine of the proposed turbines along the route between Ballydesmond and Cloonbannin Cross (as users join the N72). Visibility of the Proposed Development will be predominantly perpendicular to the direction of travel and mostly limited to blade tips of the proposed turbines only (see Figure 6-3b). Intervening topography and vegetation, in addition to roadside vegetation, will restrict views towards the Proposed Development.

Where visible, views of the Proposed Development Site during the construction phase will include construction machinery such as cranes. These are not anticipated to be substantially more visible from the route than the operational turbines.

The magnitude of change for road users of the R577 as a result of the Proposed Development is considered to be **negligible** across all stages of development.

Significance of Residual Effects

Imperceptible effects on road users of the R577 are predicted as a result of the Proposed Development across all stages of development.

Cumulative Landscape Effects

The proposed turbines are predicted to be visible in sequence, succession and / or combination along the route with turbines within the south-west, central, north and east cumulative groups (see Figures 6-5 to 6-10).

Actual visibility is predicted to be attenuated by distance along the road, limiting the magnitude of change afforded to road users. The proposed turbines are not anticipated to substantially increase the prevalence of wind energy development in views from the route. The magnitude of change afforded by the Proposed Development in combination with cumulative wind energy developments is predicted to be negligible.

Imperceptible cumulative effects are predicted upon road users of the R577 across all stages of development.

The table below presents a summary of the residual and cumulative effects on vehicular routes assessment in the section above.

Table 6-13: Summary of Residual and Cumulative Effects on Vehicular Routes

Vehicular Route	Summary of Residual Effect	Summary of Cumulative Effect
N22	**Slight** effects on road users of the N22 are predicted as a result of the Proposed Development across all stages of development.	**Imperceptible** cumulative effects are predicted upon road users of the N22 across all stages of development.
N72	**No significant effects** on road users of the N72 are predicted as a result of the Proposed Development across all stages of development.	**Imperceptible** cumulative effects are predicted upon road users of the N72 across all stages of development.
R584	**Imperceptible** effects on road users of the R584 are predicted as a result of the Proposed Development across all stages of development.	**Imperceptible** cumulative effects are predicted upon road users of the R584 across all stages of development.
R587	**Imperceptible** effects on road users of the R587 are predicted as a result of the Proposed Development across all stages of development.	**Imperceptible** cumulative effects are predicted upon road users of the R587 across all stages of development.
R582	**Imperceptible** effects on road users of the R582 are predicted as a result of the Proposed Development across all stages of development.	**Imperceptible** cumulative effects are predicted upon road users of the R582 across all stages of development.
R583	**Imperceptible** effects on road users of the R583 are predicted as a result of the Proposed Development across all stages of development.	**Imperceptible** cumulative effects are predicted upon road users of the R583 across all stages of development.
R577	**Imperceptible** effects on road users of the R577 are predicted as a result of the Proposed Development across all stages of development.	**Imperceptible** cumulative effects are predicted upon road users of the R577 across all stages of development.

6.5.7 Effects on Recreational Routes

CCC has designated a number of routes in order to protect important and valued views and prospects across the county, as shown in Figure 6-1b.

CCC Scenic Routes S33 and S32

CCC Scenic Routes S33 and S32 are located in the south of the study area just south of Lough Allua. Described as "Local Roads from South Lake Road – Inchigeela and Béal Átha an Ghaorthaidh, via Curraheen to Tullagh" and "*Local Road between Béal Átha an Ghaorthaidh – branch off S. Lake Road and Kealvaugh*" respectively. The routes are noted for views of "Views of Lough Allua & the surrounding mountains" and the "*surrounding lakes, hills & remote rural landscape*" (CCC, 2022b). At its closest point the routes passes within approximately 15.4km of the nearest proposed turbine.

Classed by CCC as a landscape of medium value, it is stated as having a rural character with a sense of remoteness. The main land cover features are trees, agricultural land and mountains / hills (CCC, 2022b).

Cumulative ZTV mapping (see Figures 6-5 to 6-12) indicates visibility of many of the assessed operational, consented, appealed and in-planning cumulative wind farm sites along the route.

Sensitivity

Recreational users of the routes are considered to be of high susceptibility to the type of development proposed. This is due to the landscape being of key focus to recreational users as they pass at walking pace along the routes.

Views afforded to recreational users are considered to be of high value, given their designation as scenic routes.

The sensitivity of recreational receptors utilising the routes to the type of development proposed is therefore considered to be **high**.

Magnitude of Change

Theoretical visibility of up to approximately 15 of the proposed turbines is predicted along two sections of the routes. The first section of visibility is approximately 1.0km long as users travel north from Kealvaugh, where views of the Proposed Development will be at some distance (greater than 15km) and will be viewed at oblique angles. As users travel south along the same section, no visibility is predicted as views will be behind the direction of travel.

The second section of theoretical visibility is approximately 3.4km long as users travel north just east of Shehymore (off route) heading towards Ballygriffin.

There is potential for construction machinery, including tall cranes, to be visible to road users during the construction phase. This will introduce noticeable human-made features in views from the route; however, their presence will be short-lived and replaced with views of the proposed turbines, which will sit alongside the existing wind farm context following construction.

Views from this route are relatively open across expansive mountains ranges. Given the distance at which views are afforded, it is anticipated that the Proposed Development will only form a small part of overall views.

The magnitude of change for recreational users of S33 and S32 as a result of the Proposed Development is considered to be **medium / low** across all stages of development.

Significance of Residual Effects

Moderate effects on recreational users of S33 and S32 are predicted as a result of the Proposed Development across all stages of development.

Cumulative Landscape Effects

The proposed turbines are predicted to be visible in sequence, succession and / or combination along the route with turbines within the south-west, central, south and east cumulative groups (see Figures 6-5 to 6-7 and 6-9 to 6-12).

Actual visibility is predicted to be attenuated by distance along the routes, limiting the magnitude of change for recreational users. The proposed turbines, in combination with cumulative developments, are not anticipated to substantially increase the prevalence of wind energy development in views from the route. The magnitude of change as a result of the Proposed Development, in combination with cumulative wind energy developments, is predicted to be negligible.

Imperceptible cumulative effects are predicted upon recreational users of S33 and S32.

CCC Scenic Route S35

CCC Scenic Route S35 is located in the south of the study area adjacent to Kippagh. Described as a "*local road between Dromcarra and Rossmore*" and is noted for "*views of rolling hills, open countryside, valley of the River Lee and distant mountain views*" (CCC, 2022b). At its closest point the route travels within approximately 16.3km of the nearest proposed turbine.

Classed by CCC as a landscape of medium-high landscape value, it is stated that agriculture – subsistence farming is a key characteristic land use and minor hills and valleys are the main land cover features (CCC, 2022b).

Viewpoint 21 is broadly representative of views towards the Proposed Development from the route (see Figures 6-1-21a -c).

Cumulative ZTV mapping (see Figures 6-5 to 6-12) indicates visibility of many of the assessed operational, consented, in-planning and appealed cumulative wind farm sites along the route.

Sensitivity

Recreational users of the route are considered to be of high susceptibility to the type of development proposed. This is due to the landscape being of key focus to recreational users as they pass at walking pace along the route.

Views afforded to recreational users are considered to be of high value, given their designation as a scenic route.

The sensitivity of recreational receptors utilising the route to the type of development proposed is therefore considered to be **high**.

Magnitude of Change

Theoretical visibility of up to approximately seven to nine of the proposed turbines is predicted for an approximately 1.8km section of the route. Views of the Proposed Development will be afforded from over 15km and will be perpendicular to the direction of travel as users travel in either direction.

There is potential for construction machinery, including tall cranes, to be visible to road users during the construction phase. This will introduce noticeable human-made

features in views from the route; however, their presence will be short-lived and replaced with views of the proposed turbines, which will sit alongside the existing wind farm context following construction.

Views from this route are relatively open across expansive agricultural land and mountains ranges in the distance. Given the distance at which views are afforded, it is anticipated that the Proposed Development will only form a small part of overall views.

The magnitude of change for recreational users of S35 as a result of the Proposed Development is considered to be **medium / low** across all stages of development.

Significance of Residual Effects

Moderate effects on recreational users of S35 are predicted as a result of the Proposed Development across all stages of development.

Cumulative Landscape Effects

The proposed turbines are predicted to be visible in sequence, succession and / or combination along the route with turbines within the south-west, central, south and east cumulative groups (see Figures 6-5 to 6-7 and 6-9 to 6-12). In combination with consented development at Knocknamork, the Proposed Development will marginally increase the prevalence of wind energy development in perpendicular views from the routes (see Viewpoint 21, Figure 6-1-21a-c).

Actual visibility is predicted to be attenuated by distance along the routes, limiting the magnitude of change for recreational users. The magnitude of change as a result of the Proposed Development, in combination with cumulative wind energy developments, is predicted to be low.

Moderate cumulative effects are predicted upon recreational users of S35 across all stages of development.

CCC Scenic Route S26

CCC Scenic Route S26 is located in the south of the study area. The route leaves the N22 at Lissacresig and continues west towards Gurtnabinna before heading south to join S27 just west of Aharas. Described as a "*local road between Lisacresig and the Mouth of the Glen*" and is noted for "*views of rugged landscape and valleys*" (CCC, 2022b). At its closest point the route travels within approximately 9.5km of the nearest proposed turbine.

Classed by CCC as a landscape of "*high (x2) – medium" landscape value*, it is stated that "*subsistence farming, settlement & industry (timber processing)*" is a key characteristic land use and hills and valleys are the main land cover features (CCC, 2022b).

Viewpoint 9 is broadly representative of views from a section of this route (see Figures 6-1-9a-c).

Cumulative ZTV mapping (see Figures 6-5 to 6-12) indicates visibility of many of the assessed operational, consented, in-planning and appealed cumulative wind farm sites along the route.

Sensitivity

This route follows a high-speed, predominantly dual carriageway road and therefore it is not anticipated that recreational users will typically access the route. Instead, the

route is considered in reference to road users seeking to appreciate the scenic views. Given the fast pace of the route it is considered there will be limited opportunities for road users to observe the surrounding landscape, and therefore they are considered to be of low susceptibility to the type of change proposed.

Views afforded to recreational users are considered to be of high value, given their designation as a scenic route.

The sensitivity of recreational receptors utilising the route to the type of development proposed is therefore considered to be **medium**.

Magnitude of Change

Fragmented theoretical visibility of up to approximately 12 of the proposed turbines is predicted as users head west towards Gurtnabinna. Visibility will be afforded at perpendicular angles to the direction of travel to recreational users as they travel in both directions.

Intervening vegetation, including roadside vegetation, will somewhat further restrict views of the Proposed Development along the route. Where visible, the Proposed Development will introduce human-made structures into views across the landscape; however, these will form part of larger views across the wider landscape and will not be visible throughout the whole route.

There is potential for construction machinery, including tall cranes, to be visible to road users during the construction phase. This will introduce noticeable human-made features in views from the route; however, their presence will be short-lived and replaced with views of the proposed turbines, which will sit alongside the existing wind farm context following construction.

The Proposed Development will therefore result in a **medium / low** magnitude of change across the route as a whole during the construction phase, reducing to **low** once the turbines are operational.

Significance of Residual Effects

Slight effects are anticipated upon road users of S26 across all phases of development.

Cumulative Landscape Effects

The proposed turbines are predicted to be visible in sequence, succession and / or combination along the route with turbines within the south-west, central, south and east cumulative groups (see Figures 6-5 to 6-7 and 6-9 to 6-12). In combination with consented development at Knocknamork and operational development at Clydaghroe, the Proposed Development will increase the prevalence of wind energy development in perpendicular views from the route (see Viewpoint 9, Figure 6-1-9a-c).

Cumulative sites to the south of the route are anticipated to be more prominent in views than the proposed turbines and turbines at Knocknamork and Clydaghroe; however, the latter will make wind energy development more prominent in northward views. This in turn increases the angle of views from the route that includes turbines. The magnitude of change afforded by the Proposed Development, in combination with cumulative wind energy developments, is therefore predicted to be medium.

Moderate cumulative effects are predicted upon recreational users of S26 across all stages of development.

CCC Scenic Route S23 and KCC Views and Prospects on N22 adjacent to local hill Doire Réidh

CCC Scenic Route S23 and a KCC View and Prospect are located in the south-east of the study area. The routes follow the R618 as it leaves Macroom and travels north-west, joining the N22 before concluding just south of Tullig more. The route follows the same continuous road but is divided between CCC and KCC land. Described as a "*N22, National Primary Route from Macroom to Baile Bhuirne to County Boundary*" and is noted for "*views of Derrynasaggart Mountains, surrounding hills, the Sullane River Valley and rugged landscape*" (CCC, 2022b). At its closest point the routes travels within approximately 2.3km from the nearest proposed turbine.

Classed by CCC as a landscape of "medium - high (x2)" *landscape value*, it is stated that "*agriculture*" is a key characteristic land use and "*hills, valleys and settlements*" are the main land cover features (CCC, 2022b).

Viewpoints 2, 3, 6 and 17 are broadly representative of views from a section of this route (see Figures 6-1-2-a to 6-1-3c, 6-1-6a-c and 6-1-17a-c).

Cumulative ZTV mapping (see Figures 6-5 to 6-12) indicates theoretical visibility of the Central Wind Farm Group along much of this route.

Sensitivity

These routes follow high-speed roads and therefore it is not anticipated that recreational users will typically access the route. Instead, the route is considered in reference to road users seeking to appreciate the scenic views. Given the fast pace of the route it is considered there will be limited opportunities for road users to observe the surrounding landscape, and therefore they are considered to be of low susceptibility to the type of change proposed.

Views afforded to recreational users are considered to be of high value, given their designation as scenic routes.

The sensitivity of recreational receptors utilising the routes to the type of development proposed is therefore considered to be **medium**.

Magnitude of Change

Fragmented theoretical visibility is predicted for approximately 14.6km of this route. Most notably theoretical visibility is predicted along an approximately 10.2km section of the route, starting just east of The Moorings and finishing just west of Slievereagh Cross. Along this section it is predicted that up to approximately 12 of the proposed turbines will be visible, but more commonly four to six of the proposed turbines are predicted to be visible to users. Views of the Proposed Development will be afforded at perpendicular and oblique angles to the direction of travel as users travel in both directions along the route. A further four shorter sections (approximately 1.5km, 1.5km and 1.4km) of visibility, typically of up to three of the proposed turbines are predicted along this route.

Intervening roadside vegetation will restrict views of the Proposed Development along the route. The Proposed Development will introduce human-made structures into relatively close views from the route. Given the angle of views and screening elements, views of the proposed turbines are not likely to have a significant effect on views from the route.

There is potential for construction machinery, including tall cranes, to be visible to route users during the construction phase. This will introduce noticeable human-made features into views from the route; however, their presence will be short-lived and replaced with views of the turbines which will sit alongside the existing wind farm context following construction.

The Proposed Development will therefore result in a **low** magnitude of change across the route across all phases of development. This is anticipated to lessen as receptors are further along the route and therefore at a greater distance from the Proposed Development.

Significance of Residual Effects

Slight effects are anticipated upon road users of S23 and the KCC View and Prospect along this route across all stages of development.

Cumulative Landscape Effects

The Proposed Development will slightly increase visibility of turbines from this route. This is because it is visible from a short section of the route around Tulligmore which previously was not predicted to have visibility of wind farms that form part of the cumulative assessment.

The proposed turbines are predicted to be visible in sequence along the route with turbines within all cumulative groups, most notably with turbines in the south-west and south groups (see Figures 6-5, 6-6, 6-11 and 6-12). Combined visibility of the proposed turbines and turbines within the central group is predicted along much of the road within the study area (see Figure 6-7).

Actual visibility is predicted to be limited by screening elements such as topography and visibility (see Viewpoints 2, 3, 6 and 17, Figures 6-1-2a-c, 6-1-3a-c, 6-1-6a-c and 6-1-17a-c), and views are likely to be fleeting, given the speed of the road for much of the route. The magnitude of change afforded by the Proposed Development in combination with cumulative wind energy developments is predicted to be negligible.

Imperceptible cumulative effects are predicted upon road users of the of S23 and the KCC View and Prospect across all stages of development.

CCC Scenic Route S22

The CCC Scenic Route S22 is located just south of the Proposed Development Site. The route travels along a local road that heads west off the R582 and serves a number of local farmsteads and the Curragh Wind Farm. Described as a "*local road to south east of Derrynasaggart Mountains from Caumcarrig to Bohill River*" and is noted for "*views of Derrynasaggart Mountain, rockscape, river valleys and remote rural landscape*" (CCC, 2022b). At its closest point the route travels within approximately 2.4km of the nearest proposed turbine.

Classed by CCC as a landscape of "*medium - high" landscape value*, it is stated that "*very poor wetland with steeply sloping terrain used for sheep farming and commercial forestry*" is a key characteristic land use and "*commercial forestry, bog land, moorland, mountains and distant views of improved farmland*" are the main land cover features (CCC, 2022b).

Viewpoints 1 and 4 are broadly representative of views from a section of this route (see Figures 6-1-1a-c and 6-1-4a-c).

Cumulative ZTV mapping (see Figures 6-5 to 6-12) indicates visibility of a number of the assessed operational, consented, in-planning and consented cumulative wind farm sites along the route.

Sensitivity

Recreational users of the route are considered to be of high susceptibility to the type of development proposed. This is due to the landscape being of key focus to recreational users as they pass at walking pace along the route.

Views afforded to recreational users are normally considered to be of high value, given their designation as scenic route.

The sensitivity of recreational receptors utilising the route to the type of development proposed is therefore considered to be **high**.

Magnitude of Change

Visibility of the Proposed Development is predicted at either end of this route. An approximately 1.3km section along the western end of the route is anticipated to experience visibility of up to approximately six turbines from the Proposed Development. Views of the Proposed Development throughout this route will be perpendicular to the direction of travel, as users travel in both directions.

An approximately 2.4km section at the eastern end of the route is anticipated to experience visibility of up to three turbines from the Proposed Development as users travel west. Views will be ahead of users as they travel west along this section of the route, while users travelling in the opposite direction will not experience visibility as the Proposed Development will be behind the direction of travel.

Views of the Proposed Development will be greatly restricted by intervening topography. Where visible, it is anticipated that views of the Proposed Development will mostly be limited to blade tips. Given the adjacent consented and operational wind farms, the Proposed Development will fit within the existing baseline.

There is potential for construction machinery, including tall cranes, to be visible to route users during the construction phase. This will introduce noticeable human-made features in views from the route; however, their presence will be short-lived and replaced with views of the turbines, which will sit alongside the existing wind farm context following construction.

The Proposed Development will therefore result in a **medium** magnitude of change during the construction phase, reducing to **low** magnitude of change during the operational phase.

Significance of Residual Effects

Moderate effects are anticipated upon recreational users of S22 across all stages of development.

Cumulative Landscape Effects

The proposed turbines are predicted to be visible in sequence, succession and combination along the route with turbines from cumulative groups in the south, south-west, east and central (see Figures 6-5 to 6-7 and 6-9 to 6-12).

Actual visibility is predicted to be limited by screening elements such as topography and visibility (see Viewpoints 1 and 4, Figures 6-1-1a-c and 6-1-4a-c). Where visible, it is

not anticipated that the Proposed Development will substantially add to the cumulative landscape alongside the cumulative developments. The magnitude of change as a result of the Proposed Development, in combination with cumulative wind energy developments, is predicted to be low.

Moderate cumulative effects are predicted upon road users of the of S22.

CCC Scenic Route S25

CCC Scenic Route S25 is located in the south-west of the study area. The route is a local road that begins just east of Coolnoohill and travels eastward through Laharan East to join the L3402. Described as a "*section of winding local road joining The Coom and Reananerree Road*" and is noted for "*views of Foilanumera, Mweelin and Carrigalougha* Mountains" (CCC, 2022b). At its closest point the route travels within approximately 9.3km of the nearest proposed turbine.

Classed by CCC as a landscape of "*high - medium" landscape value*, it is stated that "*forestry*" is a key characteristic land use and "*hills, and valleys*" are the main land cover features (CCC, 2022b).

Viewpoint 11 is broadly representative of views from a section of this route (see Figures 6-1-11a-c).

Cumulative ZTV mapping (see Figures 6-5 to 6-12) indicates visibility of a number of the assessed operational, consented, in-planning and appealed cumulative wind farm sites along the route.

Sensitivity

Recreational users of the route are considered to be of high susceptibility to the type of development proposed. This is due to the landscape being of key focus to recreational users as they pass at walking pace along the route.

Views afforded to recreational users are considered to be of high value, given their designation as scenic route.

The sensitivity of recreational receptors utilising the route to the type of development proposed is therefore considered to be **high**.

Magnitude of Change

Theoretical visibility of up to approximately 17 of the proposed turbines is predicted for much of the western part of the route. Views of the Proposed Development will be at oblique angles to the direction of travel.

The existing baseline of views from this route include a number of operational turbines in relative proximity to the route (see Figure 6-4) in addition to more distant views of operational wind energy development in views towards the Proposed Development Site.

Intervening vegetation from adjacent forestry will provide screening to some views towards the Proposed Development. It must be borne in mind that this is likely to be rotationally felled and replanted under forestry practice. Under typical forestry practice restocked forestry plantations will, however, grow to once more screen views. It is anticipated that deforested landscapes visible as part of the forestry rotation will detract from views towards the Proposed Development.

There is potential for construction machinery, including tall cranes, to be visible to route users during the construction phase. This will introduce noticeable human-made features in views from the route; however, their presence will be short-lived and replaced with views of the turbines, which will sit alongside the existing wind farm context following construction.

Across the route as a whole, it is considered that the Proposed Development will result in a **medium / low** magnitude of change across all stages of development. The Proposed Development will be viewed in combination with a number of existing operational turbines.

Significance of Residual Effects

Moderate effects are anticipated upon recreational users of S25 across all stages of development. There is potential for rotational felling of adjacent forestry to open up views towards the Proposed Development.

Cumulative Landscape Effects

The proposed turbines are predicted to be visible in sequence, succession and combination along the route with turbines from cumulative groups in the south, south-west, east and central (see Figures 6-5 to 6-7 and 6-9 to 6-12).

The proposed turbines, alongside consented turbines at Knocknamork and operational turbines at Clydaghroe and Coomacheo will increase the prominence of wind energy development in distant perpendicular views from the route. In-planning turbines at Gortyrahilly are predicted to be more prominently visible from the route (see Viewpoint 11, Figure 6-1-11a-c).

The magnitude of cumulative change as a result of the Proposed Development is predicted to be medium / low.

Moderate cumulative effects are predicted upon road users of the of S25 across all stages of development.

CCC Scenic Route S24

CCC Scenic Route S24 is located in the south-west of the study area. The route begins on a local road and travels south-west from Coolda to the CCC boundary. Described as a "*local road between Cúil Aodha and Coom*" and is noted for "*views of the foothills of the Derrynasaggart Mountains, surrounding hills and the Sullane River*." (CCC, 2022b). At its closest point the route travels within approximately 7.3km from the nearest proposed turbine.

Classed by CCC as a landscape of "*high – medium - high" landscape value*, it is stated that "*subsistence farming*" is a key characteristic land use and "*hills, and valleys*" are the main land cover features (CCC, 2022b).

Cumulative ZTV mapping (see Figures 6-5 to 6-12) indicates visibility of a number of the assessed operational, consented, in-planning and appealed cumulative wind farm sites along the route.

Sensitivity

Recreational users of the route are considered to be of high susceptibility to the type of development proposed. This is due to the landscape being of key focus to recreational users as they pass at walking pace along the route.

Views afforded to recreational users are considered to be of high value, given their designation as scenic route.

The sensitivity of recreational receptors utilising the route to the type of development proposed is therefore considered to be **high**.

Magnitude of Change

Theoretical visibility is predicted along two sections of the route. The longest section of theoretical visibility (approximately 3.5km) is between Coolea and a section of the route to the north-west of Fuhirees. Along this section, visibility of up to approximately 17 of the proposed turbines is predicted at oblique angles as users travel north-east. Users travelling in the opposite direction are not anticipated to experience visibility of the Proposed Development as it will be behind the direction of travel.

A further, approximately 0.4km section of theoretical visibility of up to approximately 17 of the proposed turbines is predicted as users travel from the CCC boundary. Views from this section will also be at oblique angles as users travel north-east and no visibility is predicted for users travelling in the opposite direction.

Intervening roadside vegetation will further restrict views of the Proposed Development in some sections of the route. Where visible, the Proposed Development will introduce human-made structures into views across the landscape. These are not anticipated to be prominent in views, given the viewing distance, and will fit into the existing landscape in accord with adjacent operational turbines.

Where visible, views of the Proposed Development Site during the construction phase will include construction machinery such as cranes. These are not anticipated to be substantially more visible from the route than the operational turbines.

Across the route as a whole, it is considered that the Proposed Development will result in a **low** magnitude of change across all phases of development. This is due to the existing baseline for the landscape, in addition to screening provided by localised vegetation.

Significance of Residual Effects

Moderate effects are anticipated upon recreational users of S24 across all phases of development.

Cumulative Landscape Effects

The proposed turbines are predicted to be visible in sequence, succession and / or combination along the route with turbines from cumulative groups in the south-west, east and central (see Figures 6-5 to 6-7, 6-9 and 6-10).

The Proposed Development will increase visibility of turbines to the north-east of the route, thereby increasing the prominence of wind energy development in views from the route. Given the undulating nature of the route, however, visibility to surrounding cumulative sites and the Proposed Development is likely to be fragmented and limited in the extents of the turbines visible.

The magnitude of cumulative change as a result of the Proposed Development is predicted to be medium / low.

Moderate cumulative effects are predicted upon road users of the of S24 across all stages of development.

CCC Scenic Route S37

CCC Scenic Route S37 is located in the south-east of the study area. The route follows the R618 from Macroom towards the City of Cork. Described as a "*local road and R618 Regional Road approaching Macroom via Coachford*" and is noted for "*views of the Lee Valley and reservoir, rural landscape and the Sullane River.*" (CCC, 2022b). At its closest point the route travels within approximately 17.3km of the nearest proposed turbine.

Classed by CCC as a landscape of "*very high – high (x2)" landscape value*, it is stated that "*agriculture, forestry and residential*" is a key characteristic land use and "*settlement, hills, wooded area, valley and reservoir*" are the main land cover features (CCC, 2022b).

Viewpoint 22 is broadly representative of views from a section of this route (see Figures 6-1-22a-c).

Cumulative ZTV mapping (see Figures 6-5 to 6-12) indicates fragmented visibility of a number of the assessed operational, consented, in-planning and appealed cumulative wind farm sites along the route.

Sensitivity

This route follows a high-speed, dual carriageway road and therefore it is not anticipated that recreational users will typically access the route. Instead, the route is considered in reference to road users seeking to appreciate the scenic views. Given the fast pace of the route, it is considered there will be limited opportunities for road users to observe the surrounding landscape, and therefore they are considered to be of low susceptibility to the type of change proposed.

Views afforded to recreational users are considered to be of high value, given their designation as a scenic route.

The sensitivity of recreational receptors utilising the route to the type of development proposed is therefore considered to be **medium**.

Magnitude of Change

Limited visibility is predicted from this route. A short, approximately 0.7km, section of visibility of up to approximately six of the proposed turbines is predicted as users approach Macroom from the east. Further analysis identifies that no visibility will be afforded from this section, due to intervening vegetation and topography.

A further short section of visibility is also located over 30km from the Proposed Development Site. Given the distance at which views will be afforded along this section, it is not anticipated that the Proposed Development will have a substantial effect on visual amenity.

Following further scrutiny, no substantial visibility is predicted from this route. The magnitude of change associated with the Proposed Development is therefore **None**.

Significance of Residual Effects

No residual effects are anticipated on recreational users of route S37 across all stages of development.

Cumulative Landscape Effects

No cumulative effects are predicted upon road users of the of S37 across all stages of development.

CCC Scenic Route S21

CCC Scenic Route S21 is located in the east of the study area. The route follows the R582 just north and south of Carriganimmy. Described as a "*R582 Regional Road at Carriganima*" and is noted for "*views of the Musherabeg Mountains and the rural landscape.*" (CCC, 2022b). At its closest point the route travels within approximately 5.4km of the nearest proposed turbine.

Classed by CCC as a landscape of "*high – medium" landscape value*, it is stated that "*subsistence farming*" is a key characteristic land use and "*hills, valleys and settlements of Carriganimmy*" are the main land cover features (CCC, 2022b).

Viewpoint 7 is broadly representative of views from a section of this route (see Figures 6-1-7a-c).

Cumulative ZTV mapping (see Figures 6-5 to 6-12) indicates visibility of a number of the assessed operational, consented, in-planning and appealed cumulative wind farm sites along the route.

Sensitivity

These routes follow high speed, dual carriageway roads and therefore it is not anticipated that recreational users will typically access the route. Instead, the route is considered in reference to road users seeking to appreciate the scenic views. Given the fast pace of the route it is considered there will be limited opportunities for road users to observe the surrounding landscape, therefore they are considered to be of low susceptibility to the type of change proposed.

Views afforded to recreational users are considered to be of high value, given their designation as a scenic route.

The sensitivity of recreational receptors utilising the route to the type of development proposed is therefore considered to be **high**.

Magnitude of Change

Theoretical visibility of up to approximately three of the proposed turbines is predicted along the central section of this route for approximately 2.4km. Visibility of the Proposed Development will be afforded to users at oblique angles as they travel north along this route. Users travelling in the opposite direction are not anticipated to experience visibility of the Proposed Development as it will be behind the direction of travel.

As shown by Figures 6-1-7a-c of Viewpoint 7 and Figures 6-2b & 6-3b, theoretical visibility of the Proposed Development will be limited to blade tip views and are not anticipated to substantially alter views from this route.

There is potential for construction machinery, including tall cranes, to be visible to route users during the construction phase. This will introduce noticeable further human-made features in views from the route; however, their presence will be short-lived and replaced with only slight views of the turbines, which will sit alongside the existing wind farm context following construction.

It is considered that the Proposed Development will result in a **low** magnitude of change during the construction phase, reducing to a **negligible** magnitude of change

during the operational phase. This is due to limited visibility of the Proposed Development.

Significance of Residual Effects

Imperceptible effects are anticipated upon road users of S21 during the construction phase, reducing to negligible during the operational phase.

Cumulative Landscape Effects

The proposed turbines are predicted to be visible in sequence, succession and / or combination along the route with turbines from cumulative groups in the south, central and east (see Figures 6-5, 6-6 and 6-9 to 6-12).

Given the limited theoretical visibility of the proposed turbines along this route, likely to be limited to blade tips only (see Figure 6-3b), it is not anticipated that there will be substantial cumulative interactions between the proposed turbines and cumulative developments. The magnitude of cumulative change is therefore predicted to be negligible.

Imperceptible cumulative effects are predicted upon road users of the of S21 across all stages of development.

CCC Scenic Route S20

CCC Scenic Route S20 is located in the east of the study area. The route includes a number of local roads, including a section of L1123, to the east of Keim. Described as a "*local roads at Mushera in the Boggeragh Mountains and roads from Mushera to Ballynagree, Lackdotia and Rylane Cross*" and is noted for "*views of and from the Boggeragh Mountains, views of the Knocknagoun Mountains and remote rural landscape.*" (CCC, 2022b). At its closest point the route travels within approximately 6.5km of the nearest proposed turbine.

Classed by CCC as a landscape of "*medium (x3) – high" landscape value*, it is stated that "*subsistence farming, commercial forestry, Millstreet Country Park and one-off housing*" is a key characteristic land use and "*mountains, extensive mountain valleys, lowlands, vegetation and settlement*" are the main land cover features (CCC, 2022b).

Viewpoints 10 and 18 are broadly representative of views from a section of this route (see Figures 6-1-10a-c and 6-1-18a-c).

Cumulative ZTV mapping (see Figures 6-5 to 6-12) indicates visibility of a number of the assessed operational, consented, in-planning and appealed cumulative wind farm sites along the route.

Sensitivity

Part of the route is a dual carriageway, high-speed road and therefore it is considered unlikely that recreational users will utilise this section of the scenic route; however, they may utilise quieter sections. Road users along this section are considered to be of low susceptibility to the type of change proposed, due to the high speed of travel. Recreational users of the route are considered to be of high susceptibility to the type of development proposed. This is due to the landscape being of key focus to recreational users as they pass at walking pace along the route.

Views afforded to recreational users are considered to be of high value, given their designation as scenic route.

The sensitivity of road and recreational receptors utilising the route to the type of development proposed is therefore considered to be **medium and high** respectively.

Magnitude of Change

Theoretical visibility is predicted for up to approximately 17 of the proposed turbines along four sections of the route. Placenames on available mapping are relatively sparse in the area; therefore, general descriptions of visibility are given. The first patch of theoretical visibility is approximately 3.4km long and is located in the north of the route, just north of Cloghboola Beg. Views from this section will be perpendicular to the direction of travel as users travel north and south along the route, and ahead of users as they travel west along this route.

The second patch of theoretical visibility encompasses approximately 7.2km of the route and is located is along the L1123 around Upper Aubane (see Viewpoint 10, Figure 6-1-10a-c). Views from this section will be at oblique angles to the direction of travel as users travel in both directions along this route.

A further patch of visibility is predicted along 5.0km of the route around Kocknakilla Stone Circle and Glantane East. Views of the Proposed Development from this route will be at perpendicular angles, oblique angles and ahead of the users, depending on which part of the route users are travelling along. When users travel east along this route, no visibility of the Proposed Development will be afforded as it will be behind the direction of travel.

Finally, visibility of the Proposed Development is predicted for recreational users around Lacknahacknee, along approximately 3.8km of the route. Here, views of the Proposed Development will be afforded roughly ahead of users as they travel west.

Views from the route are relatively open in nature and include existing wind energy development.

Where visible, views of the Proposed Development Site during the construction phase will include construction machinery such as cranes. These are not anticipated to be substantially more visible from the route than the operational turbines.

It is considered that the Proposed Development will result in a **negligible** magnitude of change across all stages of development. It is considered that the Proposed Development will fit appropriately within the existing visual baseline from the route, which includes a number of existing wind farms.

Significance of Residual Effects

Imperceptible effects are anticipated upon road and recreational users of S20 across all stages of development.

Cumulative Landscape Effects

The proposed turbines are predicted to be visible in sequence, succession and / or combination along the route with turbines from all cumulative groups (see Figures 6-5 to 6-12).

The Proposed Development is likely to result in some stacking alongside operational turbines in closers views (see Viewpoint 10, Figure 6-1-10a-c); however, it is considered

that the Proposed Development will fit within the existing cumulative baseline and therefore will not substantially alter the cumulative landscape (see also Viewpoints 18, Figure 6-1-18a-c). The magnitude of cumulative change is therefore predicted to be low.

Moderate and slight cumulative effects are predicted upon recreational and road users of the of S20 respectively assessed across all phases of development.

CCC Scenic Route S18

CCC Scenic Route S18 is located in the east of the study area. The route includes the local road between Stonefield and Nad and a connecting road, part of which is named Coolroe More. Described as a "*local mountain roads between Seefin, Kilcorney and Nad.*" and is noted for "*views of the Boggeragh Mountains and distant views of the Caherbranagh and Derrynasaggart Mountains.*" (CCC, 2022b). At its closest point the route travels within approximately 16.3km of the nearest proposed turbine.

Classed by CCC as a landscape of "*medium*" landscape value, it is stated that "*subsistence farming and upland commercial forestry*" is a key characteristic land use and "*grass valleys, rough upland grazing, commercial forestry, Boggeragh Mountains and Owenbaun River Valley*" are the main land cover features (CCC, 2022b).

Viewpoints 20 and 23 are broadly representative of views from a section of this route (see Figures 6-1-20a-c and 6-1-23a-c).

Cumulative ZTV mapping (see Figures 6-5 to 6-12) indicates visibility of a number of the assessed operational, consented, in-planning and appealed cumulative wind farm sites along the route.

Sensitivity

Recreational users of the route are normally considered to be of high susceptibility to the type of development proposed. This is due to the landscape being of key focus to recreational users as they pass at walking pace along the route.

Views afforded to recreational users are considered to be of high value, given their designation as scenic route.

The sensitivity of recreational receptors utilising the route to the type of development proposed is therefore considered to be **high**.

Magnitude of Change

Theoretical visibility of up to approximately 17 of the proposed turbines is predicted from three sections of the route. The first is for an approximately 1.9km section of the route around Crinaloo. Visibility of the Proposed Development along this section will be afforded to recreational users at oblique angles as they travel in both directions.

A further section of visibility along the route is predicted for approximately 3.4km as users travel between Curraraigue and adjacent to Lacklaun. Views of the Proposed Development from this route will be at oblique angles as recreational users travel in both directions.

Finally, approximately 0.4km section of visibility is afforded to the south-west of the route; however, further scrutiny anticipates that surrounding forestry will restrict views towards the Proposed Development from this location.

Views from this route are relatively open but will be at some distance (approximately greater than 15km). Where visibility of the proposed Development is possible, views will also include existing operational wind farms as part of the baseline.

There is potential for construction machinery, including tall cranes, to be visible to route users during the construction phase. This will introduce noticeable further human-made features in views from the route; however, their presence will be short-lived and replaced with only slight views of the turbines which will sit alongside the existing wind farm context following construction.

It is considered that the Proposed Development will result in a **negligible** magnitude of change across all stages of development. It is considered that the Proposed Development will fit appropriately within the existing baseline of views from the route that include a number of existing wind farms.

Significance of Residual Effects

Imperceptible effects are anticipated upon recreational users of S18 across all stages of development.

Cumulative Landscape Effects

This route is located within the east cumulative group; therefore, turbines of this group are likely to form prominent features within views from the group. It is predicted that the proposed turbines will be visible in sequence, succession and / or combination along the route with turbines from the central, north and east cumulative groups (see Figures 6-7 to 6-10).

The Proposed Development will be seen at some distance in combination with developments within the central cumulative group. Stacking of the operational turbines within this group occurs as part of the baseline; however, the Proposed Development is likely to add to this (see Viewpoints 20 and 23, Figures 6-1-20a-c and 6-1-23a-c). Given the distance at which views of the proposed turbines will be afforded and the prominence of operational developments adjacent to the route, it is considered that the Proposed Development will not substantially alter the cumulative landscape. The magnitude of cumulative change is therefore predicted to be low.

Moderate cumulative effects are predicted upon recreational users of the of S18 respectively across all stages of development.

The table below presents a summary of the residual and cumulative effects on recreational routes assessment in the section above.

Table 6-14: Summary of Residual and Cumulative Effects on Recreational Routes

Recreational Route	Summary of Residual Effect	Summary of Cumulative Effect
Scenic Route S33 and S32	**Moderate** effects on recreational users of S33 and S32 are predicted as a result of the Proposed Development across all stages of development.	**Imperceptible** cumulative effects are predicted upon recreational users of S33 and S32.
Scenic Route S35	**Moderate** effects on recreational users of S35 are predicted as a result of the Proposed Development across	**Moderate** cumulative effects are predicted upon recreational users of S35 across all stages of development.

Recreational Route	Summary of Residual Effect	Summary of Cumulative Effect
	all stages of development.	
Scenic Route S26	**Slight** effects are anticipated upon road users of S26 across all phases of development.	**Moderate** cumulative effects are predicted upon recreational users of S26 across all stages of development.
Scenic Route S23 and KCC Views and Prospects on N22 adjacent to local hill Doire Réidh	**Slight** effects are anticipated upon road users of S23 and the KCC View and Prospect along this route across all stages of development.	**Imperceptible** cumulative effects are predicted upon road users of the of S23 and the KCC View and Prospect across all stages of development.
Scenic Route S22	**Moderate** effects are anticipated upon recreational users of S22 across all stages of development.	**Moderate** cumulative effects are predicted upon road users of the of S22.
Scenic Route S25	**Moderate** effects are anticipated upon recreational users of S25 across all stages of development. There is potential for rotational felling of adjacent forestry to open up views towards the Proposed Development.	**Moderate** cumulative effects are predicted upon road users of the of S25 across all stages of development.
Scenic Route S24	**Moderate** effects are anticipated upon recreational users of S24 across all phases of development.	**Moderate** cumulative effects are predicted upon road users of the of S24 across all stages of development.
Scenic Route S37	**No** residual effects are anticipated on recreational users of route S37 across all stages of development.	**No** cumulative effects are predicted upon road users of the of S37 across all stages of development.
Scenic Route S21	**Imperceptible** effects are anticipated upon road users of S21 during the construction phase, reducing to negligible during the operational phase.	**Imperceptible** cumulative effects are predicted upon road users of the of S21 across all stages of development.
Scenic Route S20	**Imperceptible** effects are anticipated upon road and recreational users of S20 across all stages of development.	**Moderate and slight** cumulative effects are predicted upon recreational and road users of the of S20 respectively assessed across all phases of development.
Scenic Route S18	**Imperceptible** effects are anticipated upon recreational users of S18 across all stages of development.	**Moderate** cumulative effects are predicted upon recreational users of the of S18 respectively across all stages of development.

6.5.8 Representative Viewpoints

An assessment has been made on the likely effects on views and visual amenity as experienced from 27 viewpoint locations. These are considered representative of a

range of viewers and viewing opportunities across the study area and accord with viewpoints agreed with KCC through the scoping exercise carried out in April 2022.

Upon ZTV interrogation following design freeze, Viewpoint 27 was no longer anticipated to have visibility of the Proposed Development Site (See Figure 6-1-27a-c), and it has therefore not been taken forward within this assessment.

Details of each viewpoint are set out in Table 6-15 and their locations illustrated in Figures 6-2a to 6-3b, Volume 3. An assessment of likely effects is provided in the following section.

Table 6-15: Viewpoint Locations

VP No.	Viewpoint name (distance from nearest turbine)	Grid Ref (ITM X, Y)	Reason for VP Location
1	View from local road (scenic route) in the townland of Coomnaclohy (3.1km)	520223, 579845	Scenic route / promoted path.
2	View from the N22 (scenic route) in the townland of Derrynasaggart (3.2km)	515542, 579551	Scenic route / promoted path.
3	View from the N22 (scenic route) in the townland of Derrynasaggart (2.8km)	517878, 579175	Scenic route / promoted path.
4	View from the local road (scenic route) off the R582, in the townland of Caherdowney (4.2km)	526068, 584071	Scenic route / promoted path.
5	View from the local road in the townland of Derrynafinnia (3.6km)	514440, 584063	County Kerry Visually Sensitive Area.
6	View from the N22 (scenic route) in the townland of Flats (5.8km)	520583, 576905	Scenic route / promoted path.
7	View from R582 (scenic route) in the townland of Carriganimmy (6.7km)	528239, 581471	Scenic route / promoted path.
8	View from the L1123, Altamont, Tullig, Milstreet Co Cork. (8.7km)	528103, 590174	Adjacent to the settlement of Millstreet.
9	View from the L3402 (scenic route) in the townland of Derryfineen (9.7km)	519327, 572433	Scenic route / promoted path.
10	View from the L1123 (scenic route), Upper Aubane, Tullig, Co. Cork. (10.7km)	532055, 587307	Scenic route / promoted path.
11	View from local road (scenic route) in the townland of Fuhiry (10.6km)	513952, 572028	Scenic route / promoted path.
12	View from the R583, in the townland of Coole (10.1km)	528456, 591681	Road users.
13	View from N72 on the border of townlands Meenskeha West and Ardnageeha (14.7km)	528006, 597421	Road users.
14	View from local track in the townland of Crohane (13km)	504855, 579442	County Kerry Visually Sensitive Area.

VP No.	Viewpoint name (distance from nearest turbine)	Grid Ref (ITM X, Y)	Reason for VP Location
15	View from local road in the townland of Shronaboy (14.2km)	503895, 585869	County Kerry Visually Sensitive Area.
16	View from local road in the townland of Raleigh South (14.3km)	529895, 571776	County Cork High landscape value Area.
17	View from R618, in the townland of Gurteenroe (15.2km)	532880, 573140	Within the settlement of Macroom.
18	View from road (scenic route) in the townland of Lacknahaghny (15.6km)	536930, 579468	Scenic route / promoted path.
19	View from local road in the townland of Gneevgullia near Upper Gneevguilla (15.5km)	512414, 597747	Adjacent to small settlement.
20	View from local road (scenic route) in the townland of Crinnaloo North (16.3km)	536555, 591050	Scenic route / promoted path
21	View from local road (scenic route) in the townland of Kilbarry (16.7km)	526970, 567536	Scenic route / promoted path.
22	View from the R618 (scenic route) in the townland of Ummera (17.4km)	535311, 572574	Scenic route / promoted path. On the outskirts of the settlement of Macroom.
23	View from local road (scenic route) in the townland of Inchamay North (17.8km)	538600, 590201	Scenic route / promoted path.
24	View from local road in the townland of Dromickbane (17.8km)	500332, 586514	County Kerry Visually Sensitive Area.
25	View from the forestry track in the townland of Maulyarkane (18.1km)	505923, 596491	County Kerry Visually Sensitive Area.
26	View from local road in the townland of Gortagullane (19.5km)	498412, 585871	County Kerry Visually Sensitive Area.

Viewpoint 1 (see figures 6-1-1-a – c)

View from local road (scenic route) in the townland of Coomnaclohy

This viewpoint is taken from a local road within County Cork looking north towards the Proposed Development Site. The existing view from the road is towards a slope which forms a foreground ridgeline which effectively screens any long-distance view that could be afforded.

The area comprises rough grazing and intermittent areas of gorse planting with few human-made features other than an existing telegraph pole which features within the existing view.

A number of operational turbines are theoretically visible in the round from the viewpoint.

The future baseline of the viewpoint includes a number of turbines of the consented Knocknamork Wind Farm and a turbine from the consented Clydaghroe Extension.

The viewpoint is within the LCT 15b Ridged and Peaked Upland.

Sensitivity

This viewpoint is representative of recreational users of the CCC Scenic Route and local road users.

Road users from this viewpoint are considered to be of medium / low susceptibility to the type of change proposed. The road observes a high speed limit at the viewpoint; however, the narrow nature of the road may lower speeds, allowing users to take in the surrounding landscape to a slight extent. Recreational users utilising the route are considered to be of high susceptibility to the type of change proposed. This is due to the landscape being of key focus to recreational users as they pass at walking pace along the route.

Views from the route are considered to be of high value, given their designation as a scenic route.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **medium** and recreational users are considered to be of **high** sensitivity to the type of change proposed.

Magnitude of Change

The addition of the Proposed Development alters the view and brings with it a degree of movement that is not present in the existing view. However, this is only from a single turbine hub and blade tips, in addition to a small partial view of the tip of one further proposed turbine. It is considered therefore that the magnitude of change is **low**, as the baseline condition remains similar to what exists at present. Changes to the view presented by the Proposed Development are predicted to be barely perceptible to visual receptors, due to speed of travel and direction of travel

Significance of Residual Effects

Slight effects predicted upon road and recreational users of the route across all stages of development.

Cumulative Visual Effects

From this viewpoint, views of the consented Knocknamork Wind Farm and the consented Clydaghroe Extension will be seen in combination with the Proposed Development. Some minor clashing is anticipated to occur with a single turbine in conjunction with a turbine at the Consented Knocknamork Wind Farm. This is not anticipated to detract substantially from the view and for the most part the Proposed Development will be seen as a cohesive part of the future baseline.

The cumulative magnitude of change from this viewpoint is anticipated to be low.

Slight cumulative effects are therefore predicted due to the Proposed Development.

Viewpoint 2 (see figures 6-1-2-a to c)

View from the N22 (scenic route) in the townland of Derrynasaggart

This viewpoint is taken from the N22, one of the main routes between Cork and Killarney and through Macroom, looking north-east towards the Proposed Development Site. This viewpoint was taken in County Cork in close proximity to the border of County Kerry and does not fall within any landscape designations.

The view is typical along many sections of the N22 where longer distance views are afforded of the hilly landscape, as gaps in mature roadside vegetation permit. Other lengths of the N22 feel very much enclosed, with views constricted to near roadside only. The existing operational Mullaghanish Mast is clear in view.

The future baseline of the viewpoint includes a number of turbines of the consented Knocknamork Wind Farm and a turbine from the consented Clydaghroe Extension.

The viewpoint is within the LCT 15b: Ridged and Peaked Upland.

Sensitivity

This viewpoint is representative of road users of the CCC Scenic Route. Due to lack of pedestrian access, the speed of this road and the volume of traffic which it experiences, recreational users are not considered to be regular users of the route and therefore are not considered further.

Road users from this viewpoint are considered to be of low susceptibility to the type of change proposed. The road observes a high speed limit at the viewpoint and will allow for little viewing opportunity of the surrounding landscape.

Views from the route are considered to be of high value, given their designation as a scenic route.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **medium**.

Magnitude of Change

With the addition of the Proposed Development within this visual receptor route there is a barely perceptible change. This is in part due to the screening effect of the existing prevailing vegetation structure, including the nearside road vegetation and the coniferous plantation, which at present will sit in front of the Proposed Development.

These factors, combined with existing movement in the landscape essentially along the N22 means that the magnitude of change is considered to be n**egligible** as the change is barely distinguishable.

Significance of Residual Effects

Imperceptible effects are predicted across all stages of development.

Cumulative Visual Effects

From this viewpoint, views of the consented Knocknamork Wind Farm will be seen in conjunction with the Proposed Development as part of the future baseline of the view. The Operational Mullaghanish Mast is also visible from this viewpoint. Restricted visibility of the Proposed Development is afforded from this viewpoint. Where visibility is afforded, the Proposed Development will be seen as part of the future baseline, fitting within the wind farm array.

The cumulative magnitude of change from this viewpoint is anticipated to be negligible.

As a result, **imperceptible** cumulative effects are predicted due to the Proposed Development.

Viewpoint 3 (see figures 6-1-3-a to c)

View from the N22 (scenic route) in the townland of Derrynasaggart

This view is taken from the N22 in close proximity to existing individual residential properties set against a localised ridgeline topped in coniferous woodland plantation looking north and north-east towards the edge of the southern part of the Proposed Development Site. The site is located beyond the existing mature plantation.

The future baseline of the viewpoint includes a number of turbines of the consented Knocknamork Wind Farm.

The viewpoint location is within County Cork and its LCT 15b Ridged and Peaked Upland.

Sensitivity

This viewpoint is representative of road users of the CCC Scenic Route. Due to lack of pedestrian access, the speed of this road and the volume of traffic which it experiences, recreational users are not considered to be regular users of the route and therefore are not considered further.

Road users from this viewpoint are considered to be of low susceptibility to the type of change proposed. The road observes a high speed limit at the viewpoint and will allow for little viewing opportunity of the surrounding landscape.

Views from the route are considered to be of high value, given their designation as scenic route.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **medium.**

Magnitude of Change

The inclusion of the Proposed Development allows for the blade tip of one of the proposed turbines to be visible at this location. The proposed turbine is considered to be barely perceptible, as it is mostly screened by intervening coniferous vegetation that lies between the N22 and the Proposed Development Site. Views are also afforded at a perpendicular angle to the direction of travel. The magnitude of change is therefore considered to be **negligible.**

Significance of Residual Effects

From this location and the significance of effects upon receptors of this viewpoint, it is considered to be **imperceptible** across all stages of development.

Cumulative Visual Effects

From this viewpoint, views of the consented Knocknamork Wind Farm will be seen in conjunction with the Proposed Development as part of the future baseline of the view. Where visible, the Proposed Development and aforementioned consented wind farm will be heavily screened by coniferous woodland. Visible aspects of the Proposed Development will be seen as part of the future baseline.

The cumulative magnitude of change from this viewpoint is anticipated to be negligible.

As a result, i**mperceptible** cumulative effects are predicted due to the Proposed Development.

Viewpoint 4 (see figures 6-1-4-a to c)

View from local road (scenic route) off the R582 in the townland of Caherdowney

The viewpoint is taken from a local scenic route in County Cork at the start of the Proposed Development Site access to the east of the main part of the site siting the seventeen number of turbines.

The baseline conditions of the view are of a rural farmed landscape to the foreground. The middle ground consists of rising land with coniferous forestry at its base and rough moorland grazing on the slopes. On top of the backdrop ridgeline are existing turbines (Curragh and Caherdowney) and masts present as features in the landscape and viewed against the skyline.

The viewpoint is within the LCT 15b Ridged and Peaked Upland.

Sensitivity

Road users from this viewpoint are considered to be of medium / low susceptibility to the type of change proposed. The road observes a high speed limit at the viewpoint; however, the narrow nature of the road may lower speeds to allow users to take in the surrounding landscape to a slight extent. Recreational users utilising the route are considered to be of high susceptibility to the type of change proposed. This is due to the landscape being of key focus to recreational users as they pass at walking pace through the along the route.

Views from the route are considered to be of high value, given their designation as a scenic route.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **medium** and recreational users are considered to be of **high** sensitivity to the type of change proposed.

Magnitude of Change

The magnitude of change is predicted to be **negligible.** This is because there is only a partial view of a single turbine blade tip of the Proposed Development viewed amongst other operational turbines which form the baseline. As it is only the blade tip that can be viewed there is a very limited perception of different scaling between the Proposed Development and the turbines that exist as part of the Caherdowney development.

Significance of Residual Effects

It is considered therefore that the significance of effects of the addition of the Proposed Development is **imperceptible** across all stages of development.

Cumulative Visual Effects

From this viewpoint, views of the operational Caherdowney and Curragh Wind Farms are theoretically visible in conjunction with the Proposed Development. It is anticipated that views of the proposed Development will be mostly screened and therefore will not result in any cumulative effects on the visual amenity of receptors from this viewpoint.

No cumulative change is therefore anticipated from this viewpoint.

As a result, **no cumulative effects** are predicted due to the Proposed Development.

Viewpoint 5 (see figures 6-1-5-a to c)

Views from the local road in the townland of Derrynafinnia

This viewpoint location is taken within the County Kerry Visually Sensitive Area from a local road looking south-east towards the Proposed Development Site. The view is open towards a far distant hill but also has hill formations and ridges within the fore and middle grounds.

Rough grazing and gorse alongside coniferous plantation on hill sides and tops are also viewed. Telegraph poles traverse the landscape in the fore and middle ground with the hub and blades of the operational Clydaghroe turbines viewed in the far distance. These operational turbines are viewed against the backdrop of the hills and do not breach the skyline.

The future baseline of the viewpoint includes a number of turbines of the consented Knocknamork Wind Farm, in addition to a turbine of the consented Clydaghroe Extension. It is anticipated that these turbines will breach the skyline.

The viewpoint is within the LCA 27: Clydagh River, The Paps and Derrynasaggart Mountains.

Sensitivity

Road users from this viewpoint are considered to be of medium / low susceptibility to the type of change proposed. The road observes a high speed limit at the viewpoint; however, the narrow nature of the road may lower speeds to allow users to take in the surrounding landscape to a slight extent. Recreational users utilising visiting the Visually Sensitive Area are considered to be of high susceptibility to the type of change proposed. This is due to the landscape being of key focus to recreational users as they pass at walking pace along the route.

Views from the route are considered to be of high value, given the areas designation as a Visually Sensitive Area.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **medium** and recreational users are considered to be of **high** sensitivity to the type of change proposed.

Magnitude of Change

Although the baseline view consists of existing and consented wind farms, the Proposed Development will provide a marked difference in the view experienced from this location. The hubs and blade tips of five of the proposed turbines and the blade tips only of a single proposed turbine are closer to the view and will breach into the skyline more so than those of the existing baseline.

The scale of the proposed turbines mean that they do not appear as 'one' development alongside the existing turbines of Clydaghroe. Rotational movement is also another clear change in the view, as seen against the open sky with a slight 'stacking effect' aligning from the siting of two of the proposed turbines.

The presence of existing vertical and distracting elements within the view, including telephone wires and dilapidated post-and-wire fencing, reduces the prominence of the proposed turbines within the view.

The magnitude of change is predicted to be **medium**.

Significance of Residual Effects

The significance of effects from this location is considered **moderate** for road users and **moderate** for recreational users across all stages of development.

Cumulative Visual Effects

From this viewpoint, views of the consented Knocknamork Wind Farm and the consented Clydaghroe Extension will be seen in conjunction with the Proposed Development. The Operational Clydaghroe Wind Farm and Mullaghanish Mast are also visible as part of the existing baseline of this viewpoint.

The turbines of the Proposed Development are closer to the receptor and are therefore a more prominent feature than the existing operational and consented turbines. Some clashing will occur between two of the proposed turbines, although it is not anticipated that they will clash with the operational baseline.

The cumulative magnitude of change from this viewpoint is anticipated to be medium, as the addition of Proposed Development in combination with the adjacent consented developments means that turbines will become a more prominent component of the view.

As a result, **moderate** cumulative effects are predicted upon road and recreational users.

Viewpoint 6 (see figures 6-1-6-a to c)

View from the N22 (scenic route) in the townland of Flats

This viewpoint location has been taken from the main transitory route of the N22 on the edge of Flats, looking north towards the Proposed Development Site. The baseline conditions are of linear residential development along the N22 and individual dwellings and farmsteads dotted around the valley floor and lower slopes.

It is essentially a rural landscape with views through the built form edging the road to the upper slopes and the hill ridgeline in the background. A single operational turbine hub and blade tips, and the blade tips of a further three turbines of the Clydaghroe development can be seen in the distance above the ridgeline, although these operational turbines appear relatively small in scale.

The future baseline of the viewpoint includes a number of turbines of the consented Knocknamork Wind Farm in addition to a turbine of the consented Clydaghroe Extension.

The viewpoint location is within County Cork and the LCT 12a: Rolling Marginal Middleground.

Sensitivity

Road users from this viewpoint are considered to be of medium susceptibility to the type of change proposed. The road observes a lower speed limit as it passes through Ballyvourney / Ballymakeery. Recreational users utilising the route are considered to be of high susceptibility to the type of change proposed. This is due to the landscape being of key focus to recreational users as they pass at walking pace through / along the route.

Views from the route are considered to be of high value, given their designation as scenic route.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **high / medium** and recreational users are considered to be of **high** sensitivity to the type of change proposed.

Magnitude of Change

The Proposed Development will introduce relatively distant views of two turbines, including their hubs and blade tips, and a further three turbines with only blade tips visible into the view from the streetscape. The landscape character of the view afforded comprises different components, some not particularly in harmony with one another, such as vertical telephone poles and lampposts contrasting with mature street trees. These factors, coupled with the intervening layers of natural features and similar wind energy development already present, mean that the magnitude of change is considered to be **low** across all stages of development.

Significance of Residual Effects

Moderate and slight effects are predicted upon recreational and road users respectively of Viewpoint 6.

Cumulative Visual Effects

From this viewpoint, views of the consented Knocknamork Wind Farm and the consented Clydaghroe Extension will be seen in conjunction with the Proposed Development. The operational Clydaghroe Wind Farm and Mullaghanish Mast also form part of the existing baseline of this view. Where visible, the Proposed Development will appear as part of the future baseline of the viewpoint. Some minor clashing may occur with two turbines, but this is not considered significant due to the viewing distance.

The cumulative magnitude of change from this viewpoint is anticipated to be medium / low.

As a result, **moderate** cumulative effects are predicted due to the Proposed Development.

Viewpoint 7 (see figures 6-1-7-a to c)

View from R582 (scenic route) in the townland of Carriganimmy

The view from the scenic route is across a rural pastoral landscape towards the rough grazing and plantation forested hillsides in the background. Interlayers of mature vegetation, including shelterbelts and tree copses, together with individual farmsteads make up the middle and foregrounds.

Operational turbines of Curragh and Caherdowney wind farms can be viewed in the background on top of the hill landforms against the skyline as well as the Mullaghanish Mast. The two operational developments are read as one in the landscape contextual setting in which they are viewed.

The viewpoint location is within Country Cork and in the LCT 15b: Ridged and Peaked Upland.

Sensitivity

This viewpoint is representative of road users of the CCC Scenic Route. Due to lack of pedestrian access and the speed of this road, recreational users are not considered to be regular users of the route and therefore are not considered further.

Road users from this viewpoint are considered to be of medium susceptibility to the type of change proposed. The road observes a lower speed limit as it passes through an area with a number of residential properties.

Views from the route are considered to be of high value, given their designation as scenic route.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **high / medium**.

Magnitude of Change

The Proposed Development does not perceptibly add to what is the baseline view at present. The tips of the blade tips of a single proposed turbine will be seen above the ridgeline, which already includes views of several operational turbines. In this regard the magnitude of change is therefore considered **negligible**.

Significance of Residual Effects

The significance of effect is deemed as **imperceptible** across all stages of development.

Cumulative Visual Effects

From this viewpoint, views of the operational Caherdowney and Curragh Wind Farms will be seen in conjunction with the Proposed Development. It is anticipated that views of the proposed Development will be mostly screened by intervening topography and therefore will not result in any cumulative effects on the visual amenity of receptors from this viewpoint.

The cumulative magnitude of change from this viewpoint is therefore negligible.

As a result, **imperceptible** cumulative effects are predicted due to the Proposed Development.

Viewpoint 8 (see figures 6-1-8-a to c)

View from the L1123, Altamont, Tullig, Millstreet Co Cork.

The viewpoint is taken from a local transitory route on the edge of the settlement of Millstreet, overlooking the pastoral hedge-bound farmed landscape to the rising slopes of the forested and rough-grazed slopes of the hills in the background.

The baseline includes several operational renewable turbine developments. Caherdowney and Curragh are viewed as 'one' development and seen in combination with Mullaghanish Mast. There are also the turbines of Gneeves, Clydaghroe and Coomacheo, which are more staggered across the ridgeline and due to the differences in scale and their siting, read as separate entities.

The viewpoint is within Country Cork and the LCT 11: Broad Marginal Middleground Valleys.

Sensitivity

This viewpoint is representative of road users.

Road users from this viewpoint are considered to be of medium susceptibility to the type of change proposed. The road observes a lower speed limit as it passes through Millstreet.

Views from the route are considered to be of medium value, given the lack of designation along the route and its value to the local community.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **medium.**

Magnitude of Change

The Proposed Development will introduce new turbines into the existing distant view of wind farms. This includes the blade tips and hub of one of the proposed turbines and the blade tips only of a further four. Due to the location and scale of the Proposed Development, one turbine in particular forms a clearer new element of the view. The remaining turbines of the development are only partially visible behind the ridgeline. Two of these turbines clash with adjacent existing turbines, but at the viewing distance this does not interfere greatly with the overall view. The magnitude of change is therefore considered to be **low**.

Significance of Residual Effects

The Proposed Development is anticipated to result in **slight** effects on receptors of Viewpoint 8 across all stages of development.

Cumulative Visual Effects

From this viewpoint, views of the operational Caherdowney, Gneeves, Clydaghroe, Coomacheo and Curragh Wind Farms will be seen in conjunction with the Proposed Development. A small number of turbines of the existing developments clash within the array.

It is anticipated that views of the Proposed Development will be mostly screened by intervening topography, with one turbine more prominent than the remainder of the Proposed Development. Where visible, the Proposed Development will be at a larger scale than existing operational developments and is anticipated to clash slightly with adjacent developments. The Proposed Development therefore forms a mismatched appearance when introduced into the wind farm array within the view; however, the distance at which views are afforded reduces the prominence of this.

The cumulative magnitude of change from this viewpoint is considered to be medium / low.

As a result, **slight** cumulative effects are predicted due to the Proposed Development across all stages of development.

Viewpoint 9 (see figures 6-1-9-a to c)

View from the L3402 (scenic route), in the townland of Derryfineen

The view is taken from a local scenic route towards prevailing topography, which results in a close ridgeline with longer distance views to the rising hills in the distance. Pastoral grass with scrub trees and vegetation, including gorse, make up the foreground with large skies and rounded hills in the background.

The operational mast of Mullaghanish is clear on the hill summit. The turbines of Clydaghroe are viewed in a wide contextual setting and seen against the backdrop of a hill landform or just above the hill ridge, although these barely register.

The future baseline of the viewpoint includes a number of turbines of the consented Knocknamork Wind Farm in addition to a turbine of the consented Clydaghroe Extension.

The viewpoint is within County Cork and the LCT 12a: Rolling Marginal Middleground.

Sensitivity

This viewpoint is representative of road users of the CCC Scenic Route. Due to lack of pedestrian access and the speed of this dual carriageway road, recreational users are not considered to be regular users of the route and therefore are not considered further.

Road users from this viewpoint are considered to be of medium susceptibility to the type of change proposed. The road observes a lower speed limit as it passes through an area with a number of residential properties.

Views from the route are considered to be of high value, given their designation as scenic route.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **high / medium**.

Magnitude of Change

Operational turbines of the Clydaghroe Wind Farm and the operational Mullaghanish Mast are visible in the distance from this viewpoint.

The Proposed Development will introduce clearer human-made elements into distant views. The blade tips and hubs of four of the proposed turbines and the blade tips of a further four proposed turbines will break the skyline; however, this is not anticipated to dramatically alter views given the distance, the perpendicular angles at which they will be viewed and the presence of existing infrastructure within the view. The Proposed Development is therefore not anticipated to substantially alter views from this viewpoint.

The magnitude of change as a result of the Proposed Development is therefore considered to be **low** across all stages of development.

Significance of Residual Effects

Slight effects are predicted as a result of the Proposed Development across all stages of development.

Cumulative Visual Effects

From this viewpoint, views of the consented Knocknamork Wind Farm and the consented Clydaghroe Extension will be seen in conjunction with the Proposed Development. The operational Clydaghroe Wind Farm and Mullaghanish Mast also form part of the existing baseline of this view.

Where visible, the Proposed Development will appear as part of the future baseline of the viewpoint. Some clashing may occur within the view; however, this is not considered significant due to slight differing in size of turbines and the distance at which the turbines will be visible. In this view, the consented Knocknamork turbines and the Proposed Development turbines appear similar in size and means they appear as one wind farm with turbines different distances from the viewpoint.

The cumulative magnitude of change from this viewpoint is anticipated to be low.

As a result, **slight** cumulative effects are predicted due to the Proposed Development.

Viewpoint 10 (see figures 6-1-10-a1-c)

View from the L1123 (scenic route), Upper Aubane, Tullig, Co. Cork.

This longer distance view is taken from the scenic route just beyond the 10km radius from the site and looking south-west towards the Proposed Development Site. The view is one of a rolling farmed pastoral landscape with forestry rising to the moorland hills in the distance.

The landscape is a patchwork of well-resourced field boundaries comprised of hedgerows and brightly-coloured gorse planting with individual trees, shelterbelts, and coniferous woodland blocks. Individual farmsteads nestled between tree copses are also within the large contextual setting.

Although the existing turbines are at some distance, they are still clearly seen as elements within the view as they sit on top of the rising background hills breaching into the skyline.

The viewpoint location is in County Cork and the LCT 15b: Ridged and Peaked Upland.

Sensitivity

This viewpoint is representative of road users of the CCC Scenic Route. Due to lack of pedestrian access and the speed of this dual carriageway road, recreational users are not considered to be regular users of the route and therefore are not considered further.

Road users from this viewpoint are considered to be of low susceptibility to the type of change proposed. The road observes a high speed limit at the viewpoint, allowing users limited opportunity to appreciate the surrounding landscape.

Views from the route are considered to be of high value, given their designation as scenic route.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **medium**.

Magnitude of Change

In the distance of this view, the existing operational Mullaghanish Mast can be seen in the distance. Adjacent to the mast in the view, there are a number of existing operational turbines that rise and fall with the line of the interlocking hill ridges. The proposed turbines will be seen amongst this existing context in distant views afforded at oblique angles from the road. This includes the blade tips and hubs of three proposed turbines and the blade tips of a further ten of the proposed turbines.

Some of the existing turbines are seen against a backdrop of hill landform but the majority of them, either the whole of the turbine or the hub and blade tips seen above the existing ridgelines and into the skyline.

The magnitude of change therefore is considered to be **low**, as the Proposed Development will form additional vertical elements but will not be prominent in the contextual setting from this viewpoint location.

Significance of Residual Effects

Slight effects are predicted across all stages of development.

Cumulative Visual Effects

From this viewpoint, views of the operational Caherdowney, Gneeves, Clydaghroe, Coomacheo and Curragh Wind Farms will be seen in conjunction with the Proposed Development. Given the number of turbines visible from this viewpoint, a number of turbines of the existing developments clash within the array.

Although seen in one large context, it is considered that the turbines of each operational wind farm and the proposed turbines are viewed as separate developments, primarily due to the differences in scale. It is anticipated that views of the Proposed Development will be mostly screened by intervening topography. Where visible, the Proposed Development will be at a larger scale than existing operational developments and is anticipated to clash with adjacent developments. The Proposed Development therefore forms a mismatched appearance when introduced into the wind farm array within the view; however, the distance at which views are afforded reduces the prominence of this.

The cumulative magnitude of change from this viewpoint is considered to be medium / low.

As a result, **slight** cumulative effects are predicted due to the Proposed Development. This is primarily due to the difference in scale of the proposed turbines when seen in combination with the existing operational turbines, especially of those relating to the Curragh development. When viewed it is difficult for them to read as one development or an extension to any of the existing operational development within the landscape setting.

Viewpoint 11 (see figures 6-1-11-a to c)

View from local road (scenic route), in the townland of Fuhiry

The view is taken from a high point near the 10km radius to the south-west of the Proposed Development Site looking north-east. The view looks across the tops of an extensive mature coniferous plantation towards the hill landforms in the distance set against a large sky.

The character of the landscape is mainly of extensive coniferous plantation, open moorland and distant peaks and summits. Forest clearings to accommodate the consented turbines associated with the Knocknamork development are visible within the middle foreground. It should be noted that within this view, the majority of visible land cover is modified and actively managed.

Operational turbines at Coomacheo and Clydaghroe wind farms are visible in the distance.

The future baseline of the viewpoint includes a number of turbines of the consented Knocknamork Wind Farm, in addition to a turbine of the consented Clydaghroe Extension. To the right of the viewpoint view frame lies Gortyrahilly, an in-planning development which will form an eye-catching feature of the future baseline.

The viewpoint is within County Cork and the LCT 13a: Valleyed Marginal Middleground.

Sensitivity

This viewpoint is representative of recreational users of the CCC Scenic Route and local road users.

Road users from this viewpoint are considered to be of medium / low susceptibility to the type of change proposed. The road observes a high speed limit at the viewpoint; however, the narrow nature of the road may lower speeds to allow users to take in the surrounding landscape to a slight extent. Recreational users utilising the route are considered to be of high susceptibility to the type of change proposed. This is due to the landscape being of key focus to recreational users as they pass at walking pace along the route.

Views from the route are considered to be of high value, given their designation as scenic route.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to **be medium** and recreational users are considered to be of **high** sensitivity to the type of change proposed.

Magnitude of Change

There is a degree of change that could be afforded by the landscape. This is because at present, the view contains distant operational turbines but is dominated by forestry plantation that will be rotationally felled and restocked, therefore the views are changeable over a relatively short period.

The viewer is visibly drawn towards the proposed turbines in the middle ground with the addition of the Proposed Development. This is further enhanced by blade tip movement of the turbines. The Proposed Development will introduce distant views of the blade tips and hubs of 11 of the proposed turbines and the blade tips only of a further five proposed turbines. These views will be at perpendicular angles to the direction of travel.

The magnitude of change afforded by the Proposed Development is therefore considered to be **medium** across all stages of development.

Significance of Residual Effects

The significance of effects is considered to be **moderate** across all stages of development.

Cumulative Visual Effects

From this viewpoint, views of the consented Knocknamork and Clydaghroe Extension Wind Farms are seen in conjunction with the Proposed Development. The operational Coomacheo Wind Farm will also be seen in conjunction with the Proposed Development within the centre of the view. Off centre to the right of the view the operational Carriganima Community Wind Farm and Bogeragh Turbines can be seen. These developments may potentially be joined by the Ballinagree and Gortyrahilly developments that are in-planning at present.

The Proposed Development may clash somewhat with existing and consented developments; however, given the distance from the receptors this will not be greatly discernible.

The proposed turbine array will fit within the future baseline that includes the consented Knocknamork Wind Farm, although some stacking will occur. The Proposed Development will increase the field of view of the future baseline that contains turbines.

At the viewing distance, the Proposed Development will appear to form a cohesive part of the existing and future baseline. If permitted, the adjacent Gortyrahilly development will form the most dominant element of the view.

The cumulative magnitude of change from this viewpoint is considered to be medium.

As a result, **moderate** cumulative effects are predicted due to the Proposed Development.

Viewpoint 12 (see figures 6-1-12-a to c)

View from the R583, in the townland of Coole

View taken from the R583 to the north-east of the site located approximately 10km to the south-west. The views from the R583 are quite enclosed in nature, with views afforded only where the prevailing topography and roadside vegetation allow. This viewpoint has been taken at a high point on the road with view towards the Derrynasaggart Mountains.

A number of operational turbines are visible atop distant hills that form the backdrop to views from the road.

The location of the viewpoint is in County Cork and the LCT 11: Broad Marginal Middleground Valleys.

Sensitivity

Road users from this viewpoint are considered to be of low susceptibility to the type of change proposed due to the high speed limit of the road.

Views from the route are considered to be of medium value, given the lack of designation along the route and its value to the local community.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **medium / low**.

Magnitude of Change

The Proposed Development is barely visible from this viewpoint. The blade tips of two of the proposed turbines are visible above a large area of forestry. The Proposed Development, where visible, is considered to align with the existing baseline of the view. The magnitude of change as a result of the Proposed Development is therefore considered to be **negligible**.

Significance of Residual Effects

The significance of effect is considered to be imperceptible across all stages of development.

Cumulative Visual Effects

From this viewpoint, views of the operational Caherdowney, Gneeves and Curragh Wind Farms will be seen in conjunction with the Proposed Development. It is anticipated that views of the Proposed Development will be mostly screened by intervening topography and vegetation, therefore is not anticipated to result in any cumulative effects on the visual amenity of receptors from this viewpoint.

The cumulative magnitude of change from this viewpoint is therefore negligible.

As a result, i**mperceptible** cumulative effects are predicted due to the Proposed Development.

Viewpoint 13 (see figures 6-1-13-a to c)

View from N72 on the border of townlands Meenskeha west and Ardnageeha

This view is from the N72 to the north / north-east of the site approximately 14km from the Proposed Development Site. The view is towards distant peaks and summits, with a middle foreground of a mature vegetation structure comprising mature scrub, trees and gorse, back clothed by coniferous plantation.

In the foreground are electricity poles, but other than timber post-and-rail fencing, and an isolated property to the right of the view, there is little evidence of substantial built elements in the view. In the far distance are the hill ranges where the site is located. Other than vehicular movement the landscape setting is tranquil with little other movement.

A number of operational turbines are visible in the distance, although these are barely perceptible to the naked eye.

The viewpoint is in County Cork and the LCT 11: Broad Marginal Middleground Valleys.

Sensitivity

Road users from this viewpoint are considered to be of low susceptibility to the type of change proposed due to the high speed limit of the road.

Views from the route are considered to be of medium value, given the lack of designation along the route and its value to the local community.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **medium / low.**

Magnitude of Change

The baseline of this viewpoint includes development of a similar nature set within the wider context which benefits from the backdrop of the existing hill slopes, with only the operational Mullaghanish Mast a clear feature that registers against the sky.

At this distance the Proposed Development forms a small portion of the view and mostly fits within the existing context, with only one turbine marginally more dominant than the others. It is viewed against the backdrop of the prevailing landform where it is most visible. The magnitude of change is therefore considered to be **low**, as the new view is similar to the existing baseline circumstances.

Significance of Residual Effects

No significant effects are predicted as a result of the Proposed Development across all stages of development**.** This is due to a combination of the distance, coupled with the limited view of the development, in addition to the limited sensitivity of receptors at this viewpoint.

Cumulative Visual Effects

From this viewpoint, views of the operational Coomacheo, Gneeves and Curragh Wind Farms will be seen in conjunction with the Proposed Development. It is anticipated that

views of the proposed Development will be mostly screened by intervening topography and vegetation. Visibility occurs at such a distance that the interaction with the Proposed Development and adjacent developments that it is anticipated to have negligible effects on visual receptors.

As a result, **imperceptible** cumulative effects are predicted due to the Proposed Development. In-planning development at Ballinagree is likely to be mostly screened by local vegetation and the attenuation of effects by distance. It is therefore considered that the Proposed Development is unlikely to result in significant cumulative effects in combination with in-planning development at Ballinagree.

Viewpoint 14 (see figures 6-1-14-a to c)

View from local track, in the townland of Crohane

This viewpoint location is taken within a Visually Sensitive Area. The view is from a high point on a local road / track within an enclosed scenic landscape.

The viewpoint location is within County Kerry and the LCA 27: Clydagh River, The Paps and Derrynasaggart Mountains.

Sensitivity

It is anticipated that there will be limited users of this route. Receptors will likely include residents accessing their properties. Road users from this viewpoint are therefore considered to be of medium susceptibility due to their lower speeds allowing for greater interest in their surroundings. Recreational users visiting the designated area are considered to be of high susceptibility to the type of change proposed. This is due to the landscape being of key focus to recreational users as they pass at walking pace along the route.

Views from the route are considered to be of high value, given the area's designation as a Visually Sensitive Area.

Overall sensitivity of road and recreational users from this viewpoint to the type of development proposed is considered to be **high / medium and high** respectively.

Magnitude of Change

The Proposed Development is entirely screened from this viewpoint. The screening effect as presented in the baseline photograph will alter throughout the seasons. During leafless seasons it is anticipated that the Proposed Development may be slightly visible; however, intervening vegetation will still restrict views somewhat. Where visible, the Proposed Development will be seen at some distance.

From the photomontage it is considered that there will be **no** magnitude of change therefore predicted.

Significance of Residual Effects

No effects are predicted as a result of the Proposed Development across all stages of development

Cumulative Visual Effects

From this viewpoint, there is potential to view the operational Clydaghroe wind farm, in addition to the consented Knocknamork and Clydaghroe Extension. Dense screening provided by vegetation substantially restricts views towards the Proposed

Development. It is anticipated that only winter views may be afforded, this will still include significant screening from branches. It is therefore considered unlikely that there will be any cumulative effects upon receptors from this viewpoint.

As a result, no cumulative effects are predicted on visual receptors from this viewpoint.

Viewpoint 15 (see figures 6-1-15-a to c)

View from local road, in the townland of Shronaboy

This view is taken from an elevated location on the local road within Shronaboy, also within a KCC Visually Sensitive Area. The view depicts a rolling pastoral farmed landscape with broad leave shelterbelts and coniferous woodland forming the middle ground leading to the rising hill landforms in the distance.

A mature hedge and tree lined rural road accessing individual properties makes for what will be an enclosed intimate setting in the lower elevated areas.

The viewpoint location is in County Kerry and the LCA 22: Quagmire and Owneyskeagh Rivers.

Sensitivity

Road users from this viewpoint are considered to be of medium / low susceptibility to the type of change proposed. The road observes a high speed limit at the viewpoint; however, the narrow nature of the road may lower speeds to allow users to take in the surrounding landscape to a slight extent.

Views from the route are considered to be of medium value, given the lack of designation along the route and its value to the local community.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **medium**.

Magnitude of Change

The addition of the Proposed Development into the view afforded from this location is barely perceptible. Although the Proposed Development will introduce new human-made features into ridgeline views, only the blade tip of one turbine will be visible. This is at some distance and is not obvious in the view. As such, the view is not visibly altered, with the magnitude being **negligible.**

Significance of Residual Effects

Imperceptible effects are predicted across all stages of development.

Cumulative Visual Effects

No cumulative sites are visible from this viewpoint. There are therefore no cumulative effects as a result of the Proposed Development from this viewpoint.

Viewpoint 16 (see figures 6-1-16-a to c)

View from local road, in the townland of Raleigh South

This viewpoint location is within a CCC High Value landscape and is approximately 14km to the south-east of the Proposed Development Site, close to the settlements of Raleigh South and Macroom.

The operational Mullaghanish Mast is a visible element and while there are operational turbines to the east of the mast, including the turbines of Curragh, Caherdowney and Gneeves. These are not particularly discernible to the viewer as they sit on the ridgeline of the hills set behind the main middle range in view and benefit from partial screening from the fore and middle ground existing vegetation structure.

The future baseline of the viewpoint includes a number of turbines of the consented Knocknamork Wind Farm in addition to a turbine of the consented Clydaghroe Extension.

The viewpoint has been taken from LCT 13a: Valleyed Marginal Middleground.

Sensitivity

Road users from this viewpoint are considered to be of medium / low susceptibility to the type of change proposed. The road observes a high speed limit at the viewpoint; however, the narrow nature of the road may lower speeds to allow users to take in the surrounding landscape to a slight extent.

Views from the route are considered to be of medium value, given the lack of designation along the route and its value to the local community.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **medium**.

Magnitude of Change

The Proposed Development will introduce views of the blade tips and hubs of three of the proposed turbines and the blade tips of a further two. They will be viewed at some distance, at an oblique angle to the direction of travel and somewhat alongside the operational Mullaghanish Mast. In this regard the magnitude of change is considered to be **low** across all stages of development.

Significance of Residual Effects

Slight effects are predicted across all stages of development.

Cumulative Visual Effects

From this viewpoint, the operational Mullaghanish Mast is a visible element. While there are operational turbines to the east of the mast, including the turbines of Curragh, Caherdowney and Gneeves, they are not particularly discernible to the viewer as they are partially screened and distant from the viewpoint. The future baseline of the viewpoint includes a number of turbines of the consented Knocknamork Wind Farm, in addition to a turbine of the consented Clydaghroe Extension at the centre of the view. The Proposed Development will be seen in conjunction with the aforementioned consented development, in addition to the operational Clydaghroe Wind Farm.

In-planning development is predicted to be visible in combination with the proposed turbines to the south-west at Inchamore within the view frame. The additional effects as a result of the Proposed Development in consideration of this future baseline are considered to be minimal, due to the distance at which they will be viewed and that the proposed turbines lie within an array of consented turbines.

Where visible, the Proposed Development is anticipated to form a cohesive view with the adjacent consented Knocknamork Wind Farm with minimal stacking of turbines. The effects of these small cumulative interactions on receptors will be attenuated by

distance. The cumulative magnitude of change is therefore considered to be negligible.

As a result, **slight** cumulative effects are predicted due to the Proposed Development.

Viewpoint 17 (see figures 6-1-17-a to c)

View from R618 in the townland of Gurteenroe

This viewpoint location is from the regional route of the R618 close to the edge of the settlement of Macroom and is located approximately 15km to the south-east of the Proposed Development Site.

The viewpoint location is in County Cork and the LCT 13a: Valleyed Marginal Middleground.

Sensitivity

Road users from this viewpoint are considered to be of medium susceptibility to the type of change proposed. The road observes a low speed limit; however, given the context within the busy settlement, users' focus will predominantly be upon the road ahead or confined to close proximity views.

Views from the route are considered to be of medium value, given the lack of designation along the route and its value to the local community.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **medium**.

Magnitude of Change

Views of the Proposed Development from this viewpoint are entirely screened by intervening vegetation, built form and topography. The magnitude of change is therefore considered to be **none**.

Significance of Residual Effects

No effects are anticipated on users from this viewpoint.

Cumulative Visual Effects

The Proposed Development is entirely screened, and no cumulative sites are visible from this viewpoint. There are therefore **no** cumulative effects as a result of the Proposed Development from this viewpoint.

Viewpoint 18 (see figures 6-1-18-a to c)

View from road (scenic route) in the townland of Lacknahaghny

The viewpoint location is from an elevated location on a scenic route approximately 15.5km south-east of the Proposed Development Site. The extensive and panoramic view encompasses lowland farmland, forestry, scrub, and moorlands rising to peaks and summits. The view contains a great deal of scenic interest.

A number of operational turbines are visible from this viewpoint.

The viewpoint location is in County Cork and on the edge of two LCTs 13a: Valleyed Marginal Middleground and 15b: Ridged and Peaked Upland.

Sensitivity

Road users from this viewpoint are considered to be of medium / low susceptibility to the type of change proposed. The road observes a high speed limit at the viewpoint; however, the narrow nature of the road may lower speeds to allow users to take in the surrounding landscape to a slight extent. Recreational users utilising the route are considered to be of high susceptibility to the type of change proposed. This is due to the landscape being of key focus to recreational users as they pass at walking pace along the route.

Views from the route are considered to be of high value, given their designation as scenic route.

Overall sensitivity of road and recreational users from this viewpoint to the type of development proposed is considered to be **medium and high** respectively.

Magnitude of Change

The Proposed Development will introduce distant views of the blade tips and hubs of two of the proposed turbines and the blade tips of a further two. These will be viewed as part of the wider baseline contextual setting, which includes existing turbine developments. The distance at which views are afforded diminishes the effects of the proposed turbines, which do not appear disingenuous to the setting viewed from this location.

The magnitude of change resulting from the addition of the Proposed Development is considered to be **negligible** across all stages of development, in that it is discernible but within such a wide contextual setting it does not greatly alter the view from the baseline.

Significance of Residual Effects

Imperceptible effects across all stages of development.

Cumulative Visual Effects

A large number of cumulative sites are visible from this viewpoint. In centre view, the Proposed Development will be seen in conjunction with the operational Curragh, Caherdowney and Carrignaima Community Wind Farms. The Proposed Development is mostly screened from view, though where seen it will appear at a somewhat larger scale to the adjacent developments.

Given the distance at which views are afforded it is not anticipated that the Proposed Development will result in significant cumulative effects. The cumulative magnitude of change from this viewpoint is considered to be negligible.

As a result, **imperceptible** cumulative effects are predicted due to the Proposed Development.

Viewpoint 19 (see figures 6-1-19-a to c)

View from local road in the townland of Gneevgullia near Upper Gneeveguilla

This viewpoint location is approximately 15.5km to the north-west of the Proposed Development Site and is located just north of the village of Gneevguilla. The view from this viewpoint includes roadside vegetation of the local road and adjacent properties in the foreground. A bank of coniferous trees can be seen in the midground of the view, with mountains, including The Derrynasaggart Mountains in the background.

The future baseline of the viewpoint includes a small portion of a blade tip of one turbine of the consented Knocknamork Wind Farm.

The viewpoint has been taken within County Kerry and the LCA 23: River Blackwater and Rathmore.

Sensitivity

Road users from this viewpoint are considered to be of medium susceptibility to the type of change proposed. The road observes a low speed limit, allowing for greater viewing opportunities of the surrounding landscape.

Views from the route are considered to be of medium value, given the lack of designation along the route and its value to the local community.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **medium**.

Magnitude of Change

Primarily due to substantial screening afforded by intervening topography and the distance between the receptor and the Proposed Development Site, change brought about by the Proposed Development will barely be distinguishable.

The Proposed Development will introduce additional human-made structures into the view in the form of blade tips of two of the proposed turbines. The distance at which these are located from receptors at this viewpoint, in addition to screening provided by the existing landscape resource and the built form could be argued to approximate to a 'no change' situation. The magnitude of change is therefore considered to be **negligible.**

Significance of Residual Effects

Imperceptible effects are predicted upon receptors from this viewpoint across all stages of development.

Cumulative Visual Effects

No cumulative sites are visible from this viewpoint. There are therefore **no** cumulative effects as a result of the Proposed Development from this viewpoint.

Viewpoint 20 (see figures 6-1-20-a to c)

View from local road (scenic route) in the townland of Crinnaloo North

This long-distance viewpoint, approximately 16km to the north-east of the Proposed Development Site, is of a wide panoramic view taken immediately to the south of the road itself. It is located near Crinaloo and is taken just off a local road. The view is very rural in nature, with layers of foreground, middle ground and far distant hills making up a panoramic expanse. Pastoral rolling fields with robust landscaping forming the field boundaries and combined with broadleaf tree copses and forested plantation slopes form the landscape to the middle foreground.

Long distance views to the hills and mountains, including The Derrynasaggart Mountains, are set within a large sky which is interrupted in the foreground by telephone poles and wires. These distance views accommodate a number of operational turbines but seen from this distance read as one overarching development and are all within one area of the view.

The viewpoint is within County Cork and the LCT 15b: Ridged and Peaked Upland.

Sensitivity

Road users from this viewpoint are considered to be of medium / low susceptibility to the type of change proposed. The road observes a high speed limit at the viewpoint; however, the narrow nature of the road may lower speeds to allow users to take in the surrounding landscape to a slight extent. Recreational users utilising the route are considered to be of high susceptibility to the type of change proposed. This is due to the landscape being of key focus to recreational users as they pass at walking pace along the route.

Views from the route are considered to be of high value, given their designation as scenic route.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **medium** and recreational users are considered to be of **high** sensitivity to the type of change proposed.

Magnitude of Change

The Proposed Development is seen in combination with the existing baseline turbines so does not fall outwith the development 'cluster'.

The scale of the proposed turbine rotor blades separates the Proposed Development somewhat. Additionally, substantial clashing and stacking will occur between the proposed and operational turbines.

The Proposed Development makes up a small portion of the view and is viewed at some distance. The magnitude of change as a result of the Proposed Development is therefore considered to be **low**. The Proposed Development is viewed at some distance and will not detract materially from the existing view.

Significance of Residual Effects

Slight effects are predicted upon receptors from this viewpoint across all stages of development.

Cumulative Visual Effects

From this viewpoint, the operational Clydaghroe, Gneeves, Caherdowney, Curragh and Coomacheo Wind Farms are visible. The Proposed Development will be seen as part of this wind farm array. A substantial amount of clashing will result from the introduction of the proposed Development to the view. Views of the proposed Development are, however, at some distance and therefore cumulative visual effects are somewhat reduced than they will be at a greater proximity.

Given the distance at which views are afforded, it is not anticipated that the Proposed Development will result in significant cumulative effects. The cumulative magnitude of change from this viewpoint is therefore considered to be low.

As a result, **slight** cumulative effects are predicted due to the Proposed Development.

Viewpoint 21 (see figures 6-1-21-a to c)

View from local road (scenic route), in the townland of Kilbarry

This long-distance view is across a panoramic landscape towards the hills in the far distance. The location of the viewpoint is approximately 16km to the south-east of the Proposed Development Site.

A number of operational turbines are visible from the viewpoint.

The future baseline of the viewpoint includes a number of turbines of the consented Knocknamork Wind Farm, in addition to a turbine of the consented Clydaghroe Extension. The viewpoint is within County Cork and the LCT 12a: Rolling Marginal Middleground.

Sensitivity

Road users from this viewpoint are considered to be of medium / low susceptibility to the type of change proposed. The road observes a high speed limit at the viewpoint; however, the narrow nature of the road may lower speeds to allow users to take in the surrounding landscape to a slight extent. Recreational users utilising the route are considered to be of high susceptibility to the type of change proposed. This is due to the landscape being of key focus to recreational users as they pass at walking pace along the route.

Views from the route are considered to be of high value, given its designation as a scenic route.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **medium** and recreational users are considered to be of **high** sensitivity to the type of change proposed.

Magnitude of Change

The Proposed Development will introduce distant views of the blade tips and hubs of five of the proposed turbines and the blade tips of a further three. Views will be afforded at perpendicular angles to the direction of travel.

Due to the distance and the huge variety of elements within the view, both natural and human-made, the landscape has the capacity to absorb the Proposed Development. It is considered that due to the transitory nature of the viewpoint location and the varying large contextual setting, the Proposed Development will not constitute a substantial change to the visual amenity of receptors from this viewpoint.

The magnitude of change afforded by the Proposed Development is considered to be **low.**

Significance of Residual Effects

The significance of effects is predicted to be **moderate and slight** upon recreational and road users respectively across all stages of development.

Cumulative Visual Effects

A large number of cumulative sites are visible from this viewpoint. In centre view, the Proposed Development will be seen in conjunction with the operational Clydaghroe Wind farm and the consented Knocknamork Wind Farm and Clydaghroe Extension.

In-planning turbines to the south-west of the Proposed Development at Inchamore will be visible from the viewpoint in combination with the proposed turbines. Collectively they will increase the field of view which contains turbines from the viewpoint. In consideration of the distance of the abovementioned turbines from the viewpoint and the presence of the proposed turbines within the array of consented development, the Proposed Development is not anticipated to substantially alter the view in cognisance of potential future wind energy development.

The Proposed Development will align with the consented future baseline of the view. Some clashing will occur between turbines of the consented Knocknamork Wind Farm and the Proposed Development. Given the distance of views, this is not anticipated to detract from the view. The cumulative magnitude of change from this viewpoint is therefore considered to be low.

As a result, **moderate and slight** cumulative effects are predicted upon recreational and road users respectively due to the Proposed Development.

Viewpoint 22 (see figures 6-1-22-a to c)

View from the R618 (scenic route) in the townland of Ummera

This viewpoint location is taken from a scenic transitory route approximately 17km to the south-east of the Proposed Development Site and where the ZTV depicts that there may be a view of four to six turbines. It should be noted that the ZTV does not take into account the screening effect provided by the prevailing vegetation structure.

The viewpoint looks over a tributary river of the River Lee and mature predominantly deciduous vegetation on its banks.

The viewpoint is within County Cork and the LCT 13a: Valleyed Marginal Middleground.

Sensitivity

Road users from this viewpoint are considered to be of medium susceptibility to the type of change proposed. The road observes a moderate speed limit at the viewpoint, which allow users to take in the surrounding landscape to a greater extent than faster roads. Recreational users utilising the route are considered to be of high susceptibility to the type of change proposed. This is due to the landscape being of key focus to recreational users as they pass at walking pace along the route.

Views from the route are considered to be of high value, given its designation as a scenic route.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **medium** and recreational users are considered to be of **high** sensitivity to the type of change proposed.

Magnitude of Change

No visibility of the Proposed Development is predicted by the photomontage from this viewpoint, due to screening vegetation and topography. The magnitude of change is therefore **none**.

Significance of Residual Effects

No effects are anticipated on users from this viewpoint.

Cumulative Visual Effects

The Proposed Development is entirely screened, and no cumulative sites are visible from this viewpoint. There are therefore **no** cumulative effects as a result of the Proposed Development from this viewpoint.

Viewpoint 23 (see figures 6-1-23-a to c)

View from the local road (scenic route) in the townland of Inchamay North

The viewpoint location is taken from elevated ground approximately 18km to the north-east of the Proposed Development Site within the Ridged and Peaked Upland area. The foreground of this view includes pastureland, with forestry land making up the middleground. In the distance mountains, including the Derrynasaggart Mountains can be seen.

Existing turbine developments are clear elements in this landscape, both in the foreground and far distance, and parts of the view could be described as being a 'windfarm' landscape.

The viewpoint location is in County Cork and the LCT 15b: Ridged and Peaked Upland.

Sensitivity

Road users from this viewpoint are considered to be of medium / low susceptibility to the type of change proposed. The road observes a high speed limit at the viewpoint; however, the narrow nature of the road may lower speeds to allow users to take in the surrounding landscape to a slight extent. Recreational users utilising the route are considered to be of high susceptibility to the type of change proposed. This is due to the landscape being of key focus to recreational users as they pass at walking pace along the route.

Views from the route are considered to be of high value, given its designation as a scenic route.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **medium** and recreational users are considered to be of **high** sensitivity to the type of change proposed.

Magnitude of Change

The contextual setting has the capacity to accommodate similar additional turbine development. From this viewpoint location the site will be seen as an integral part of the existing baseline, which includes operational turbines viewed in the distance. The proposed turbines will be distant and will not appear as dominant. It is recognised that the scale of the Proposed Development is dissimilar to the existing turbines, with an element of stacking occurring, but the distance somewhat mitigates this effect. From this viewpoint location it is anticipated that it is the existing Boggeragh turbines that will catch the eye. The magnitude of change is **negligible**.

Significance of Residual Effects

The significance of effects is i**mperceptible** across all stages of development.

Cumulative Visual Effects

A large number of cumulative sites are visible from this viewpoint. In centre view, the Proposed Development will be seen in conjunction with the operational Clydaghroe, Coomacheo, Caherdowney, Gneeves and Curragh Wind farms, in addition to the consented Knocknamork.

Views in the round include a number of operational turbines including those at Boggeragh and Esk wind farms. These operational turbines will form more prominent elements within the view than the proposed turbines.

It is anticipated that the Proposed Development will result in a considerable number of clashes with existing turbines within the view. The distance at which visibility is afforded somewhat mitigates cumulative effects; however, turbines will form a dense cluster within the centre of the view as a result of the Proposed Development. The adjacent operational Boggeragh turbines will form a more eye-catching aspect of the wider view. The cumulative magnitude of change is therefore considered to be negligible.

Imperceptible cumulative effects are therefore predicted due to the Proposed Development.

Viewpoint 24 (see figures 6-1-24-a to c)

View from local road in the townland of Dromickbane

The viewpoint location is approximately 18km to the north-west of the Proposed Development Site and is within a Visually Sensitive Area. The ZTV also indicates that a maximum of three of the proposed turbines may be seen from this view.

The view is of a pastoral agricultural landscape with a mature vegetative layer in the middle foreground, back clothed by steeply-rising hill landforms both in the middle foreground and background.

No elements breach into the skyline which is visible to the eye, although the wireline presents the tip of the operational mast Mullaghanish. The landscape appears tranquil and strongly rural in character.

The viewpoint is within County Kerry and the LCA 22: Quagmire and Owneyskeagh Rivers.

Sensitivity

Road users from this viewpoint are considered to be of medium / low susceptibility to the type of change proposed. The road observes a high speed limit at the viewpoint; however, the narrow nature of the road may lower speeds to allow users to take in the surrounding landscape to a slight extent. Recreational users visiting the designated area are considered to be of high susceptibility to the type of change proposed. This is due to the landscape being of key focus to recreational users as they pass at walking pace along the route.

Views from the route are considered to be of high value, given the area's designation as a Visually Sensitive Area.

Overall sensitivity of road and recreational users to the type of change proposed from this viewpoint is considered to be **medium and high** respectively.

Magnitude of Change

The landscape offers limited opportunities for change due to its existing baseline characteristics from this location. The smallest part of a blade tip of a single turbine may be a visible element, but it is considered that it will be barely perceptible in the view. The magnitude of change is therefore considered to be **negligible** across all stages of development.

Significance of Residual Effects

The significance of effects is imperceptible across all stages of development. There will be a small degree of movement with the tip of the rotor blade of one turbine visible that is introduced into the tranquil static view, but it is considered likely to be **barely perceptible.**

Cumulative Visual Effects

The Proposed Development is almost entirely screened from the view and does not clash with views of the Mullaghanish Mast. The cumulative magnitude of change from this viewpoint is therefore considered to be negligible.

Imperceptible cumulative effects are predicted as a result of the Proposed Development from this viewpoint.

Viewpoint 25 (see figures 6-1-25-a to c)

View from the forestry track in the townland of Maulyarkane

The view is approximately 18km north-west of the Proposed Development Site. The character consists of a wide valley-floored landscape comprising rough grazing and pastoral fields alongside large coniferous blocks. One of the blocks contains a cluster of properties which are seen in the middle distance and atop a ridgeline.

The smooth rounded hill landforms are seen in the distance against a large open sky. Other than residential properties the landscape character does not accommodate other built forms that will dominate the view.

It is located in County Kerry and the LCA 22: Quagmire and Owneyskeagh Rivers.

Sensitivity

Forestry track users from this viewpoint are considered to be of low susceptibility to the type of change proposed. These users are likely to be using the route for work purposes and therefore their attention will not be focused on the wider surroundings.

Views from the route are considered to be of medium value, given the lack of designations along the route and its value to the local community.

Overall sensitivity of road users from this viewpoint to the type of development proposed is considered to be **medium / low**.

Magnitude of Change

The Proposed Development is not anticipated to be visible from this viewpoint. Although ZTV data predicts visibility of up to three turbines from this viewpoint, actual visibility is not predicted, following photomontage analysis. This is due to intervening topography screening views. **No** change is therefore predicted.

Significance of Residual Effects

No effects are anticipated on users from this viewpoint.

Cumulative Visual Effects

The Proposed Development is entirely screened from this viewpoint. There are therefore **no** cumulative effects as a result of the Proposed Development from this viewpoint.

Viewpoint 26 (see figures 6-1-26-a to c)

View from local road in the townland of Gortagullane

This viewpoint location is taken from the furthest distance of all the viewpoints, at approximately 20km from the Proposed Development. The viewpoint is to the west of the site within the designated Visually Sensitive Area.

The character of the landscape is open moorland / rough grazing with large clumps of gorse planting which forms a localised ridgeline in the foreground. Beyond are the tops of coniferous trees and broadleaf shelterbelts found within the wide valley floor and slopes leading down to it.

All of this is not particularly visible due to the localised landform. The upper slopes and summits of hills in the middle distance and in the far distance are also evident. There is nothing on the top of the hills that appear to breach into the skyline.

It is located in County Kerry and the LCA 22: Quagmire and Owneyskeagh Rivers.

Sensitivity

Road users from this viewpoint are considered to be of medium / low susceptibility to the type of change proposed. The road observes a high speed limit at the viewpoint; however, the narrow nature of the road may lower speeds to allow users to take in the surrounding landscape to a slight extent. Recreational users visiting the designated area are considered to be of high susceptibility to the type of change proposed. This is due to the landscape being of key focus to recreational users as they pass at walking pace along the route.

Views from the route are considered to be of high value, given the area's designation as a Visually Sensitive Area.

Overall sensitivity of road and recreational users from this viewpoint to the type of development proposed is considered to be **medium and high** respectively, to the type of change proposed.

Magnitude of Change

Primarily due to the mitigating distance of the viewer and the Proposed Development, in addition to a high level of screening afforded by intervening topography, there is barely a perceptible change to the existing baseline conditions. The blade tips of a single turbine are viewed between two interlayers of rising land formation and largely back clothed with a further slope of a distant hill. The magnitude of change is anticipated to be **negligible** across all stages of development.

Significance of Residual Effects

The significance of effects is therefore described as **imperceptible** across all stages of development.

Cumulative Visual Effects

The Proposed Development is almost entirely screened from the view and does not clash with views of the Mullaghanish Mast. The cumulative magnitude of change from this viewpoint is therefore considered to be negligible.

Imperceptible cumulative effects are predicted as a result of the Proposed Development from this viewpoint.

6.5.9 Cumulative ZTV Analysis

This following section briefly describes theoretical cumulative interaction between the Proposed Development and those operational, consented or in-planning wind energy developments within 30km with potential to give rise to cumulative landscape and visual effects within a 50km radius of the Site (the study area).

A series of cumulative ZTVs (see Figures 6-5 to 6-12) have been prepared to:

- Determine meaningful cumulative overlap within the extents of the study area; and
- Assist in the evaluation of cumulative effects upon the baseline landscape and visual resource.

The susceptibility of the landscape within the study area to the type of change proposed is considered to be medium, due to the substantial amount of wind energy development across the area, in combination with low levels of urban development as a whole.

The value of the landscape within the study area is considered to be medium, due to the presence of a number of designated landscapes, in combination with areas of more average landscapes.

The study area is therefore considered to be of **medium** sensitivity to the type of development proposed.

Figures 6-5 to 6-12 show theoretical visibility of operational, consented, in-planning or appealed wind energy developments, grouped by location. These cumulative ZTVs are assessed below.

It should be noted that the descriptions below take account of the proposed turbines and the turbines within the relevant wind farm group only. There are a number of operational, consented, proposed and appealed turbines that lie outside of the wind farm group being discussed that will collectively alter the way in which the cumulative interactions mentioned below are interpreted by receptors. The magnitude of change as a result of the interactions between the proposed turbines and each wind farm group are therefore not quantified, as it is inappropriate to define change without cognisance of the whole cumulative picture. Cumulative effects have been appropriately quantified with reference to specific receptors within Section 6.5.

South-west Wind Farm Group

According to Figure 6-5 and 6-6, cumulative interactions between the Proposed Development and operational, consented and in-planning turbines of the assessed cumulative sites in the south-west of the study area (see Figures 6-5 and 6-6 legends for sites included) will broadly occur in combination / succession and sequence in equal measure. This includes fragmented across the whole of the study area, most notably in the centre, north and south, including:

- Around Boherbue / Boherboy, Ballydesmond and Newmarket and more rural areas in the north;
- Along the R568 and N70 in the west; and
- Around fragmented areas in the south including Macroom, along the N72 and R548 and rural areas.

The potential future introduction of in-planning turbines may increase the instances of combined visibility with the proposed turbines to a minor extent.

Cumulative interactions may occur, as the Proposed Development will somewhat increase the prominence of wind energy development when viewed alongside operational, consented and in-planning turbines in the south-west of the study area. Together with turbines within the south-western cumulative group, the proposed turbines may begin to surround receptors passing between the two. The distance between the proposed turbines and operational, consented and in-planning turbines (the closest turbines being approximately 9.0km, 10.0km, 8.5km and 4.8km apart respectively) will somewhat attenuate the effects of cumulative interactions between the Proposed Development and the south-west wind farm group.

Central Wind Farm Group

According to Figure 6-7, cumulative interactions between the Proposed Development and operational and consented turbines of the assessed cumulative sites in the centre of the study area (see Figure 6-7 legend for sites included) will primarily occur in combination / succession. This includes across fragmented areas mostly in the north and the south of the study area, including:

- Around Boherbue / Boherboy, Dernagree and Gneevgullia and more rural areas in the north;
- Around Kilbarry, the south of Macroom and Kilmichael and more rural areas in the south; and
- More fragmented areas of theoretical visibility beyond 20km.

There is also potential for occasional sequential visibility of the Proposed Development and the central cumulative group sites where receptors may move across the landscape and be afforded views of one or the other.

Theoretically, the most pertinent cumulative interactions are those between the Proposed Development and turbines of the central cumulative group in close proximity to the Site. Following further scrutiny of visualisations and wirelines of the Viewpoints produced as part of the main LVIA assessment, however, actual visibility is assessed to be substantially limited by intervening topography and vegetation in close proximity to the site. It is therefore determined that cumulative interactions between the Proposed Development and central cumulative group turbines are more likely to occur in distant views. Attenuation by distance, however, lessens the effects of these cumulative interactions.

North Wind Farm Group

According to Figure 6-8, cumulative interactions between the Proposed Development and operational and consented turbines of the assessed cumulative sites in the north of the study area (see Figure 6-8 legend for sites included) will primarily occur in sequence. This includes frequent sequential views in the north of the study area, including along the N72, and more occasional sequential views in the south and east, predominantly limited to fragmented visibility of the Proposed Development only.

There is also potential for combined / successional visibility of the Proposed Development and the north cumulative group sites, where receptors may see turbines of the proposed and the cumulative group from the same location. Combined / successional visibility is mostly limited to fragmented locations in the north of the study area.

Cumulative interactions may occur as the Proposed Development will somewhat increase the prominence of wind energy development when viewed alongside operational and consented turbines in the north of the study area. In combination with the turbines within the north cumulative group, the proposed turbines may begin to surround receptors passing between the two. Given the distance between the Proposed Development and turbines of the north cumulative group (the closest turbines being approximately 17.2km apart) and the fragmented nature of combined theoretical visibility, it is not anticipated that the introduction of the proposed turbines will work to substantially alter the experience of visual receptors within the landscape.

East Wind Farm Group

According to Figure 6-9 and 6-10, cumulative interactions between the Proposed Development and operational, and in-planning turbines of the assessed cumulative sites in the east of the study area (see Figures 6-9 and 6-10 legends for sites included) will broadly occur in combination / succession and sequence in equal measure. This includes across fragmented areas mostly in the north-east, east and the south-east of the study area, including:

- Around Boherbue / Boherboy, Kanturk and Newmarket and more rural areas in the north-east;
- Around Mallow, along the N72 and in more rural areas in the east; and
- Around fragmented areas in the south-east including the outskirts of Cork, Macroom and more rural areas.

Cumulative interactions may occur as the Proposed Development will somewhat increase the prominence of wind energy development when viewed alongside operational and in-planning turbines in the east of the study area. In combination with turbines within the east wind farm group, the proposed turbines may begin to surround receptors passing between the two, for example along the R582. Due to the distance between the Proposed Development and turbines of the east cumulative group (the closest turbines being approximately 7.5km (operational) and 12.6km (in-planning) apart) and the fragmented nature of combined theoretical visibility, it is not anticipated that the introduction of the proposed turbines will work to substantially alter the experience of visual receptors within the landscape.

South Wind Farm Group

According to Figure 6-11 and 6-12, cumulative interactions between the Proposed Development and operational, consented and appealed turbines of the assessed cumulative sites in the north of the study area (see Figures 6-11 and 6-12 legends for sites included) will primarily occur in sequence. This includes frequent sequential views in the south and south-east of the study area, including along the N22, and more occasional sequential views in the north, predominantly limited to fragmented visibility of the Proposed Development only.

There is also potential for combined / successional visibility of the Proposed Development and the south cumulative group sites where receptors may see turbines of the proposed and the cumulative group from the same location. Combined / successional visibility is mostly limited to fragmented locations in the south-east of the study area.

Cumulative interactions may occur as the Proposed Development will somewhat increase the prominence of wind energy development when viewed alongside operational, consented and appealed turbines in the south of the study area. Given the well-spaced nature of the developments within the south wind farm group, it is considered unlikely that the proposed turbines will substantially increase the enclosure by wind turbines for receptors located between the two. The distance between the proposed turbines and operational, consented, and appealed turbines (approximately 11.2km, 23.0km and 19.3km respectively) will attenuate the effects of cumulative interactions between the Proposed Development and the south wind farm group.

6.5.10 Summary of Cumulative Effects

Cumulative effects can arise due to multiple structures being viewed at the same time, or sequentially across several viewpoints that are connected in a journey. Such effects may arise at close quarters, at a distance or over a range of different distances.

Where visibility of the Proposed Development is theoretically predicted, the proposed turbines will likely be viewed in context with operational, and consented turbines within the study area (see Figure 6-7), including in combination with turbines at close proximity to the Site at Knocknamork, Clydaghroe, Gneeves, Coomacheo, Caherdowney and Curragh. The Proposed Development will also likely be viewed successively and / or in combination, and sequentially in some limited locations, with cumulative turbines within the cumulative study area (see Figures 6-5, 6-6 and 6-8 to 6-12).

When considering cumulative sites across the study area the Proposed Development is predicted to primarily result in the following interactions:

- Combined / successional and sequential in equal measure views with operational, consented and appealed developments in the south-west of the study area;
- Combined / successional views with operational and consented developments in the centre of the study area;
- Sequential views with operational and consented developments in the north of the study area;
- Combined / successional and sequential in equal measure views with operational and consented developments in the east of the study area; and
- Sequential views with operational and consented developments in the south of the study area.

Regarding cumulative intervisibility, potential cumulative effects upon landscape and visual amenity are predicted to be most pronounced where the proposed turbines are viewed at a distance, in combination with adjacent operational and consented turbines. The interrelationship between the proposed turbines and operational and consented developments at Knocknamork, Curragh, Caherdowney, Coomacheo, Clydaghroe and Gneeves are considered most pertinent. The resulting cumulative interactions include stacking of turbines and a prominent collection of turbines in distant views. The cumulative effects of these interactions at a distance are, however, not anticipated to be substantial due to the distance at which these interactions will be experienced.

No significant cumulative effects were predicted in respect of receptors within the study area (see Section 6.5).

6.6 Residual Effects

Proposed Mitigation

Design Process

Evolution of the Proposed Development including the site selection rationale and the iterative design process is described in detail within Chapters 4: Description of Development and Construction Methods and Chapter 3: Design Evolution and Consideration of Alternatives.

Mitigation By Design

The Proposed Development minimises or avoids adverse environmental effects where possible; however, there are limits to the degree of mitigation achieved through minimisation and avoidance alone. For example, the layout of the proposed turbines has been iterated to minimise stacking and clashing of blade tips in views from the locale. It is, however, not possible to eliminate these issues entirely as the effects are reduced from one angle of view, they typically increase in another.

The Proposed Development has been designed to reflect a range of environmental, technical and planning factors, and has been developed in line with several guidance documents, including the Planning Wind Energy Development Guidelines and Siting and Designing Wind Farms in the Landscape (NatureScot, 2017).

The final layout has been developed to incorporate the following landscape and visual amenity considerations:

- Siting of the Proposed Development away from higher upland landscapes that form the skyline to reduce visual prominence of the proposed turbines, and minimise their potential to result in skyline effects and backgrounding;
- Location of the Proposed Development at a sufficient distance from any settlements and sequential routes;
- Use of a design that presents the Proposed Development at a scale appropriate to the 'host' landscape LCA 27: Clydagh River, The Paps and Derrynassaggart Mountains and the existing pattern of wind energy development;
- Retention and suitable set back from key landscape features on the Site, to acknowledge the existing landscape composition and key characteristics of the surrounding area;
- Compatibility of design to reflect the programme of proposed coniferous forestry planting and the existing blocks, maximising opportunities to mitigate visual amenity effects from residential properties and sequential routes;
- Siting turbines at a sufficient distance from the closest residential properties to avoid potential for visual dominance, thereby reducing potential effects on residential visual amenity;
- The use of existing tracks where possible, particularly at entranceways (to be upgraded for the delivery of wind turbine components), to minimise the requirement for new tracks within the Site; and
- The use of locally-sourced materials, recessive material finishes and colours to ensure the various proposed features relate to the key characteristics of the landscape and the local vernacular.

The design has also included specific measures to minimise potential landscape and visual amenity effects associated with the following features of the Proposed Development.

Tracks

The access routes have been designed to minimise potential landscape impacts by adopting:

- Promoting access to the Proposed Development Site using existing entrance access tracks and any forestry tracks that are within the Proposed Development Site as much as possible;
- Upgrading and extension to existing tracks to minimise the length and number of new tracks; and
- Construction of the tracks at the commencement of the construction phase to minimise land take and maximise opportunities for rapid restoration of vegetation cover.

Turbines

Key factors incorporated into the layout, design and siting of the turbines in relation to landscape and visual effects involved:

- Removal of one of the turbines during design iteration 2. The turbine was removed from the design due to landscape and visual considerations, as this turbine will have been viewed as an outlier and unconnected to the main body of the Proposed Development from key viewpoints (see Chapter 3 – Design Evolution an Consideration of Alternatives);
- Interrogation of cumulative landscape in combination with the topography of the receiving landscape identified larger turbines to be more appropriate to align with the local context.
- Minimising the contrast of the turbines against the sky and background landscape by selecting a pale grey colour and semi-matt finishes; and
- Ensuring that the Proposed Development is presented as a cohesive whole appropriate to the scale of the 'host' landscape and the existing pattern of wind energy development.

Other works and Activities

In minimising the potentially adverse effects on landscape and visual resources the design of the Proposed Development also included:

- Designing out the requirement for removal of stands of forestry for construction and operation of the Site as much as possible;
- Developing a layout to minimise excavation of borrow pits to provide aggregate for new tracks and hardstandings;
- Careful siting of borrow pits, the temporary construction compound, laydown areas and machinery storage using local topography in order to visually screen them from the surrounding landscape as much as possible, whilst still considering other constraints such as watercourses (See Figure 1-2);
- Careful design of the proposed substation to ensure its scale, form and appearance complement local vernacular;
- Promotion of landscape remediation works immediately following the construction phase to encourage rapid revegetation of land around the locations of the temporary site office and borrow pits;

- Ensuring the surface of crane hardstandings, and locations where tracks have been widened, are restored, covered or managed to revegetate naturally during decommissioning, eventually marrying into the surrounding area so they are visually recessive;
- Limiting land take to the minimum required for safe construction and effective operation of the Proposed Development; and
- Ground laying turbine connecting cables within access tracks avoiding the need for overhead lines.

Mitigation during the Construction Phase

Construction of the turbines and tracks will be carried out in accordance with an agreed Construction Environmental Management Plan (see Appendix 4-1 CEMP), which includes arrangements for implementation of various aspects of the works to mitigate any potentially local adverse impacts during construction.

Specific mitigation measures necessary during construction and included within the CEMP include:

- Minimal alteration to valued Site features, including the removal of forestry which will typically occur cyclically through rotational felling as part of commercial forestry practices, and the erection of turbines which already form part of the baseline of the Visually Sensitive Area that covers the Proposed Development Site. Further impacts will be restricted through limited land clearance, vegetation removal and land occupation to the minimum necessary for the works in line with the defined plan;
- After dark, controlling construction lighting so that it does not impinge upon sensitive views, for example those from residential windows;
- Ensuring the Site and working compounds are maintained and kept tidy, avoiding clutter, unsightly debris / structures, mud, smoke or dust;
- Restoration of borrow pits as soon as possible after sections of construction work are complete.
- Re-instatement of excavated areas of soil and surface vegetation as soon as possible after sections of work are complete;
- Work access will be restricted to designated tracks and other working areas to avoid the spread of vehicle track scars across other areas;
- Temporary warning signs and other road safety management measures will be established in an orderly and well-organised manner that achieves the necessary safety management objectives with minimal landscape intrusion;
- Disturbed areas and mounds of peat, topsoil or subsoil will be re-graded to blend into the surrounding landform. Turves lifted and stored prior to construction will be utilised to ensure that disturbed areas will regenerate with locally-appropriate vegetation; and
- Removal of all temporary construction materials from the site once work is completed.

Mitigation during the Operation Phase

The operational phase of the Proposed Development is 35 years. During this phase, access tracks will be retained to enable maintenance of the turbines.

The Proposed Development will include site management procedures to enable routine maintenance of site facilities and infrastructure. Suitable signage will be implemented

to provide directions, contacts and health and safety information (See Chapter 4: Description of Development)

Design measures to reduce potentially significant landscape and visual effects have been embedded into the layout of the Proposed Development and post-construction restoration.

Mitigation during the Decommissioning Phase

During the decommissioning phase, there will be a short-term transitory impact associated with the removal of structures; however, this will result in a minimal landscape and visual effect on the locality. The effects will be equal to or lesser than the effects of construction.

Summary Residual Effects

Residual Landscape Effects

This section considers the residual effects of the Proposed Development on local landscape resources, character, and designations within the study area. The methodology used in the assessment (see Section 6.2.3: Assessment Methodology) considers the sensitivity of each of the landscape receptors under assessment and the magnitude of change that is likely to occur as a result of the Proposed Development during construction, operation, and decommissioning.

Cumulative effects on landscape receptors, which will arise from the Proposed Development being present in the landscape in addition to other proposed and consented developments within the study area, are assessed.

To inform the assessment, reference is made to County Kerry and County Cork Development Plans (KCC 2022a and CCC 2022a), which includes the relevant Landscape Character Assessments for the Proposed Development Site and associated study area.

Assessments were informed by site work and figures produced by Atmos and Innovision. The LCTs and LCAs included in the assessment are illustrated for reference in Figure 6-1a. Key landscape designations and designated routes are also shown on Figure 6-1a.

The predicted residual effects of the Proposed Development on landscape resources, character and designations assessed as part of this LVIA are summarised in Table 6-16 below, with significant effects highlighted in bold. A full assessment of landscape effects that may be experienced at each of the landscape receptors assessed as part of this LVIA is provided in Section 6.5.1-3.

Table 6-16: Summary of Landscape Effects

Landscape Receptor	Predicted effects (during construction / decommissioning)	Predicted effects (during operation)	Predicted cumulative effects
Landscape resources within Proposed Development Site	**Significant effects.**	**Significant effects.**	Imperceptible cumulative effects.
LCA 27: Clydagh River, The Paps and Derrynasaggart	Moderate effects locally to the Site and slight effects across the wider	Moderate effects locally to the Site and slight effects across the wider extents of the LCA.	Slight cumulative effects.

Landscape Receptor	Predicted effects (during construction / decommissioning)	Predicted effects (during operation)	Predicted cumulative effects
Mountains	extents of the LCA.		
LCT 15b: Ridged and Peaked Upland	Slight effects.	Slight effects.	Slight cumulative effects.
LCT 11 Broad Marginal Middleground Valleys	Imperceptible, indirect effects.	Imperceptible, indirect effects.	Imperceptible cumulative effects.
LCT 12a Rolling Marginal Middleground	Moderate, indirect effects.	Moderate, indirect effects.	Moderate cumulative effects.
LCT 13a Valleyed Marginal Middleground	Imperceptible, indirect effects.	Imperceptible, indirect effects.	Imperceptible cumulative effects.
LCT 16c Glaciated Cradle Valleys	Imperceptible, indirect effects.	Imperceptible, indirect effects.	Imperceptible cumulative effects.
KCC Visually Sensitive Area	**Significant effects** locally to the Site and moderate effects across the wider extents of the Visually Sensitive Area.	**Significant effects** locally to the Site and moderate effects across the wider extents of the Visually Sensitive Area.	Moderate cumulative effects locally to the Site and slight cumulative effects across the wider extents of the Visually Sensitive Area.
CCC High Value Landscape Area: LCT 8. Hilly River and Reservoir Valleys	Imperceptible, indirect effects.	Imperceptible, indirect effects.	Imperceptible cumulative effects.

Residual Visual Effects

The following section provides summaries of the residual effects associated with the Proposed Development on views, as experienced from representative viewpoints throughout the study area.

The predicted residual effects of the Proposed Development on visual resources are summarised below, with significant effects highlighted in bold.

Table 6-17: Summary of Residual Visual Effects

Visual Receptor	Predicted effects (during construction / decommissioning)	Predicted effects (during operation)	Predicted cumulative effects
Settlements			
Ballyvourney / Ballymakeery	Moderate effects.	Slight effects.	Slight cumulative effects.
Macroom	Imperceptible effects.	Imperceptible effects.	Imperceptible cumulative effects.
Millstreet	Imperceptible effects.	Imperceptible effects.	Imperceptible cumulative effects.
Boherbue / Boherboy	Imperceptible	Imperceptible effects.	Imperceptible

Visual Receptor	Predicted effects (during construction / decommissioning)	Predicted effects (during operation)	Predicted cumulative effects
	effects.		cumulative effects.
Vehicular Routes			
N22	Slight effects.	Slight effects.	Imperceptible cumulative effects.
N72	Not significant effects.	Not significant effects.	Imperceptible cumulative effects.
R584	Imperceptible effects.	Imperceptible effects.	Imperceptible cumulative effects.
R587	Imperceptible effects.	Imperceptible effects.	Imperceptible cumulative effects.
R582	Imperceptible effects.	Imperceptible effects.	Imperceptible cumulative effects.
R583	Imperceptible effects.	Imperceptible effects.	Imperceptible cumulative effects.
R577	Imperceptible effects.	Imperceptible effects.	Imperceptible cumulative effects.
Recreational Routes			
CCC Scenic Route S33 and S32	Moderate effects.	Moderate effects.	Imperceptible cumulative effects.
CCC Scenic Route S35	Moderate effects.	Moderate effects.	Moderate cumulative effects.
CCC Scenic Route S26	Slight effects.	Slight effects.	Moderate cumulative effects.
CCC Scenic Route S23 and KCC Views and Prospects on N22 adjacent to local hill Doire Réidh	Slight effects.	Slight effects.	Imperceptible cumulative effects.
CCC Scenic Route S22	Moderate effects.	Moderate effects.	Moderate cumulative effects.
CCC Scenic Route S25	Moderate effects.	Moderate effects.	Moderate cumulative effects.
CCC Scenic Route S24	Moderate effects.	Moderate effects.	Moderate cumulative effects.
CCC Scenic Route S37	No effects.	No effects.	No cumulative effects.
CCC Scenic Route S21	Imperceptible effects.	Imperceptible effects.	Imperceptible cumulative effects.
CCC Scenic Route S20	Imperceptible effects.	Imperceptible effects.	Moderate and slight cumulative effects upon recreational and road users respectively.
CCC Scenic Route S18	Imperceptible effects.	Imperceptible effects.	Moderate cumulative effects.
Viewpoints			
VP1- View from local road (scenic route) in the townland of Coomnaclohy	Slight effects.	Slight effects.	Slight cumulative effects.

Visual Receptor	Predicted effects (during construction / decommissioning)	Predicted effects (during operation)	Predicted cumulative effects
VP2 – View from the N22 (scenic route) in the townland of Derrynasaggart	Imperceptible effects.	Imperceptible effects.	Imperceptible cumulative effects.
VP3 – View from the N22 (scenic route) in the townland of Derrynasaggart	Imperceptible effects.	Imperceptible effects.	Imperceptible cumulative effects.
VP4 – View from local road (scenic route) off the R582 in the townland of Caherdowney.	Imperceptible effects.	Imperceptible effects.	No cumulative effects.
VP5 – View from the local road in the townland of Derrynafinnia	Moderate effects upon road and recreational users.	Moderate effects upon road and recreational users.	Moderate cumulative effects upon road and recreational users.
VP6 – View from the N22 (scenic route) in the townland of Flats	Slight effects upon road users and moderate effects upon recreational users.	Slight effects upon road users and moderate effects upon recreational users.	Moderate cumulative effects.
VP7 – View from R582 (scenic route) in the townland of Carriganimmy	Imperceptible effects.	Imperceptible effects.	Imperceptible cumulative effects.
VP8 – View from the L1123, Altamont, Tullig, Milstreet Co Cork.	Slight effects.	Slight effects.	Slight cumulative effects.
VP9 – View from the L3402 (scenic route) in the townland of Derryfineen	Slight effects.	Slight effects.	Slight cumulative effects.
VP10 – View from L1123 (scenic route), Upper Aubane, Tullig, Co. Cork.	Slight effects.	Slight effects.	Slight cumulative effects.
VP11 - View from local road (scenic route) in the townland of Fuhiry	Moderate effects.	Moderate effects.	Moderate effects.
VP12 - View from the R583 in the townland of Coole	Imperceptible effects.	Imperceptible effects.	Imperceptible cumulative effects.
VP13 - View from the N72 on the border of townlands Meenskeha West and Ardnageeha	Not significant effects.	Not significant effects.	Imperceptible cumulative effects.
VP14 – View from the local track in the townland of Crohane	No effects.	No effects.	No cumulative effects.
VP15 – View from local road in the townland of Shronaboy	Imperceptible effects.	Imperceptible effects.	No cumulative effects.

Visual Receptor	Predicted effects (during construction / decommissioning)	Predicted effects (during operation)	Predicted cumulative effects
VP16 – View from the local road in the townland of Raleigh South	Slight effects.	Slight effects.	Slight cumulative effects.
VP17 – View from the R618 in the townland of Gurteenroe	No effects.	No effects.	No cumulative effects.
VP18 – View from road (scenic route) in the townland of Lacknahagny	Imperceptible effects.	Imperceptible effects.	Imperceptible cumulative effects.
VP19 – View from the local road in the townland of Gneevegullia near Upper Gneeveguillia	Imperceptible effects.	Imperceptible effects.	No cumulative effects.
VP20 – View from local road (scenic route) in the townland of Crinnaloo North	Slight effects.	Slight effects.	Slight cumulative effects.
VP21 – View from local road (scenic route) in the townland of Kilbarry	Slight effects.	Slight effects.	Slight cumulative effects upon road users and moderate cumulative effects upon recreational users.
VP22 – View from the R618 (scenic route) in the townland of Ummera	No effects.	No effects.	No cumulative effects.
VP23 -View from local road (scenic route) in the townland of Inchamay North	Imperceptible effects.	Imperceptible effects.	Imperceptible cumulative effects.
VP24 – View from local road in the townland of Dromickbane	Imperceptible effects.	Imperceptible effects.	Imperceptible cumulative effects.
VP25 – View from the forestry track in the townland of Maulyarkane	No effects.	No effects.	No cumulative effects.
VP26 – View from local road in the townland of Gortagullane	Imperceptible effects.	Imperceptible effects.	Imperceptible cumulative effects.

Summary of Overall Residual Effects

The Proposed Development may provoke positive or negative responses depending on individual predispositions to wind energy development.

This LVIA has adopted a precautionary stance and considered the nature of all attributable potential residual effects on the landscape and on views from the construction and operation of the Proposed Development to be adverse. The Proposed

Development aims to minimise or avoid adverse environmental effects where possible; however, there are limits to the degree of mitigation achieved through minimisation and avoidance alone.

The Proposed Development has followed a consultative and iterative design process, which responds to guidance provided by NatureScot, The Environment Protection Agency and the Landscape Institute.

The Proposed Development Site is located within the KCC LCA 27: Clydagh River, The Paps and Derrynasaggart Mountains and CCC LCT 15b: Ridged and Peaked Upland, which are identified as medium sensitivity to the type of development proposed.

Landscape resources lost during the construction stage will include the loss of some 152ha of forestry. This is considered a significant effect. It should be noted that under common forestry practice, forest within the Proposed Development Site will be rotationally cut and replanted in the 'do nothing' scenario.

The extent of significant residual landscape effects of the Proposed Development will be contained locally, resulting in significant effects upon KCC Visually Sensitive Area within the locale of the Proposed Development. Beyond this distance, effects on key landscape characteristics of any LCT or landscape designation are expected to be moderate or lower.

In terms of visual effects, no settlements or vehicular receptors are anticipated to experience significant visual effects as a result of the Proposed Development.

In reference to the 27 viewpoints agreed with KCC, one of which was not taken forward within this assessment the due to no theoretical visibility predicted by the ZTV. No viewpoints or recreational receptors were predicted to experience significant effects as a result of the Proposed Development.

When considering the fully operational baseline, the nearest developments to the Proposed Development include the Coomacheo, Gneeves, Curragh, Caherdowney and Clydaghroe Wind Farms. The consented Knocknamork Wind Farm and Clydaghroe Extension form part of the future baseline for the landscape adjacent to the Proposed Development. The Proposed Development will largely be seen across the study area as an extension to and in the context of the adjacent consented Knocknamork Wind Farm. Some stacking may occur in views of the two developments; however, this is anticipated to be restricted to distant views due to limited visibility in close proximity to the Site.

The Proposed Development will introduce further turbines within the landscape, though the proposed turbines will largely be viewed across the study area from the same locations where operational turbines already form a component of existing views, ensuring limited occasions where the Proposed Development will introduce a new feature into a view.

In terms of cumulative visual effects, no receptors were predicted to experience significant effects as a result of the Proposed Development.

As a result, the introduction of the Proposed Development to the fully consented baseline will result in a slightly increased level of residual effect across the study area. Topographical containment and the presence of mitigating factors, including coniferous forestry plantation, built form and prevailing weather conditions will mostly

constrain substantial intervisibility upon landscape and visual receptors across the study area.

As a result of a consultative and iterative design process, it is clear from this LVIA that the extent of significant landscape and visual effects is relatively limited considering the scale of the Proposed Development, with any predicted significant residual effects constrained locally to the Site, due to topographical containment.

Whilst the Proposed Development will result in significant localised effects upon a KCC Visually Sensitive Area and landscape resources within the Site, the surrounding context, vast scale and undulating nature of the receiving landscape is such that it can be concluded that the landscape could accommodate the Proposed Development without leading to unacceptable levels of detrimental effects on the overall landscape setting or visual amenity experienced across the study area.

At the end of the 35-year operational life of the Proposed Development, the turbines will be decommissioned, with the Site restored to similar conditions to present.

6.7 Statement of Significance

Following assessment of landscape and visual receptors that were considered to have potential to experience significant effects as a result of the Proposed Development, it is concluded that significant effects will be relatively limited, considering the scale of the Proposed Development.

With reference to the EPA Impact Assessment of Significance Classification (EPA, 2022), no receptors were anticipated to experience profound or very significant effects as a result of the Proposed Development. Landscape resources within the Proposed Development Site boundary and the KCC Visually Sensitive Area locally to the Site were anticipated to experience significant effects due to changes to the landscape within the Proposed Development Site boundary and the introduction of turbines into close proximity views. It is, however, considered that the effects on the landscape as a result of the Proposed Development with regard to forestry felling are similar to that of the 'do nothing' scenario, in which forestry will be rotationally felled and restocked.

No significant effects were predicted upon visual receptors within the study area.

Whilst the Proposed Development will result in significant localised effects on the landscape, the surrounding context, vast scale and undulating nature of the receiving landscape is such that it can be concluded that the landscape could accommodate the Proposed Development without leading to unacceptable levels of adverse effects on the overall landscape setting or visual amenity experienced across the study area.

6.8 Referencing

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