Planning and Environmental Consultants

Environmental Impact Assessment Report (EIAR)

Crumhach Wind Farm, Co. Sligo

Chapter 13 – Landscape and Visual



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Glossary of Terms

Terminology	Definition
Guidelines (DoEHLG, 2006)	"Wind Energy Development Guidelines for Planning Authorities" published by Department of the Environment, Heritage, and Local Government, 2006. Refers to the currently published guidance for use by planning authorities and developers which addresses a variety of aspects relating to siting and design of wind energy developments including landscape characterisation, visual aesthetics, and minimum general setback distances.
Draft Guidelines (DoHPLG, 2019)	"Draft Revised Wind Energy Development Guidelines" published by Department of Housing, Planning and Local Government, 2019. Refers to the draft document of the updated the Guidelines (DoEHLG, 2006), yet to be adopted but which is widely considered best practice guidance for siting and design of wind energy developments along with the Guidelines (DoEHLG, 2006) and features guidance on specific setback distance for residential visual amenity based on tip-height of turbines.
Landscape Character Area	Units of the landscape designated in local policy that are geographically specific and have their own character and sense of place, as defined in the local policy. Each LCA has its own distinctive character, based on factors such as patterns of geology, landform, land use, cultural, historical and ecological features.
Photomontage	Visualisation that graphically depicts an accurate model of a proposed development upon a photograph or series of photographs, captured from a specific location termed the "viewpoint" and presented in the EIAR Volume 2 Photomontage Booklet, or *Photomontage Booklet*.
Route Screen Analysis	An exercise conducted as part of the onsite visibility appraisal for the LVIA in which transport routes surrounding the proposed wind farm site to a radius of 3-5km are driven in real-time and data are recorded to quantify the degree of roadside visual screening looking in the direction of the proposed turbines.
Viewpoint	Specific location in the LVIA Study Area at which imagery has been captured and used in the production of a photomontage for the *Photomontage Booklet*.
Zone of Theoretical Visibility	Two-dimensional map feature produced using a digital elevation model, depicting areas of the landscape in which the proposed development is theoretically visible either to Full or Partial degree, and also indicates areas of the landscape in which the proposed development is not visible at all. The ZTV is calculated for a large area encompassing the entire LVIA Study Area and assumes a bare-ground scenario, meaning that above-ground features including vegetation, built structure and topographical undulations less than 10m height which may limit or eliminate actual visibility, are not considered. The ZTV is primarily used as a tool to identify areas of no theoretical visibility. The ZTV does not depict actual visibility.

Glossary of Acronyms

Acronym	Definition
ACP	An Coimisiún Pleanála
DoAHG	Department of Arts, Heritage and the Gaeltacht
DoEHLG	Department of the Environment, Heritage, and Local Government
DoHPLG	Department of Housing, Planning and Local Government
EIAR	Environmental Impact Assessment Report
EPA	Environmental Protection Agency
GLVIA3	Guidelines for Landscape and Visual Impact Assessment Third Edition
IEMA	Institute of Environmental Management and Assessment
LCA	Landscape Character Area
LCU	Landscape Character Unit
LI	Landscape Institute
LI TGN	Landscape Institute Technical Guidance Note
LVIA	Landscape and Visual Impact Assessment
MCDP	Mayo County Development Plan
OSi	Ordnance Survey of Ireland
OUV	Outstanding Universal Value
RSA	Route Screening Analysis
SCDP	Sligo County Development Plan
UNESCO	United Nations, Educational, Scientific and Cultural Organisation
VP	Viewpoint
WES	Wind Energy Strategy
ZTV	Zone of Theoretical Visibility

13. LANDSCAPE AND VISUAL

13.1 Introduction

This chapter comprises a Landscape and Visual Impact Assessment (LVIA). The LVIA assesses the likely significant effects of the Proposed Project on the landscape and visual amenity. The LVIA reported in this chapter was informed by desktop studies and receptor mapping, site visits, verified photomontages, and an impact assessment methodology which follows best practice guidance for LVIA. The LVIA also includes assessment of cumulative landscape and visual effects. This chapter is supported by one volume and five appendices:

- **EIAR Volume 2: Photomontage Booklet:** A1-banner photomontage booklet presenting verified photomontage visualisations from representative viewpoints (15 no.),
- **Appendix 13-1, LVIA Methodology:** An appendix detailing the methodology and guidance used for the assessments reported in this chapter,
- **Appendix 13-2, Viewpoint Assessment Tables:** A visual impact assessment of the representative viewpoints (15 no.) included in the Photomontage Booklet,
- **Appendix 13-3, A0 LVIA Baseline Map:** A large-scale (A0) map showing all baseline landscape and visual receptors and LVIA tools (e.g. viewpoints and visibility mapping).

13.1.1 Statement of Authority

MKO has developed extensive expertise and experience over the last 20 years in the LVIA of large-scale infrastructure developments for Environmental Impact Assessment Reports (EIAR). The MKO Landscape and Visual team have produced LVIA across a diverse range of project types including renewable energy and grid infrastructure; residential developments; transport infrastructure; extraction infrastructure; and a range of other projects requiring EIAR.

This LVIA was written by Rachel Smith with oversight by Jack Workman and reviewed by Michael Watson. James Crean provided technical support for the production of the LVIA including fieldwork and GIS with oversight from Jack and Michael.

Jack Workman MSc., TMLI. is the Landscape & Visual Project Director at MKO and is chartered as a Technician Member of the British Landscape Institute, and holds a University Certificate of Study (NFQ Level 9 Minor Award) in LVIA from the University of Limerick, a specialist postgraduate qualification developed specifically for professionals undertaking LVIA. Jack is an Environmental Scientist and an LVIA Specialist with an academic background in the field of Environmental Science and Geography. Jack's primary role at MKO is scoping and writing LVIA for EIARs with over 6 years of experience managing all aspects of LVIA for a broad range of commercial infrastructure developments. Jack holds a BSc. in Psychology, and an MSc. in Coastal and Marine Environments (Physical Processes, Policy & Practice) and was awarded the Prof. Máirín De Valéra distinction in science research award. Jack is an active participant in the National Landscape Forum, presenting since 2023 on the topic of LVIA, he also regularly delivers guest lectures for students on the topic of LVIA at top third level institutions in Ireland including University of Galway, Trinity College Dublin, University College Dublin and University College Cork. Jack holds a membership with the Chartered Institute of Water and Environmental Management and is also a member of the Landscape Research Group.

Rachel Smith is a Project Environmental Scientist – LVIA Specialist who has been working with MKO since October 2023, with a University Certificate of Study (NFQ Level 9 Minor Award) in LVIA from the University of Limerick, a specialist postgraduate qualification developed specifically for professionals undertaking LVIA. Rachel is an Earth & Environmental Science consultant with more than 12 years of professional experience in producing and editing technical scientific reports, and

collecting, analysing and reporting environmental data for regulatory compliance in both the US and Ireland, including the utilisation of QGIS mapping, organisation of field work, management of environmental databases and training of environmental science staff. Rachel's primary role at MKO is producing and reviewing the LVIA chapter of EIA reports accompanying planning applications for multi-scale onshore renewable energy and non-energy developments, as well as conducting research and analysis in Irish landscape science and policy. Rachel is an affiliate of Landscape Alliance Ireland assisting with the Landscape Forum in 2025 and 2026 and has presented on topics related to LVIA at Irish universities since 2025. Rachel is a member of the Irish Geological Association as well as ProGeo, the International Association for the Conservation of Geological Heritage. Rachel holds an MSc. in Coastal and Marine Environments (Physical Processes, Policies & Practice) and a BSc. in Geology specialised in Hydrogeology.

Michael Watson is the Environment Division Director in MKO who has over 25 years of experience in the environmental sector. Following the completion of his master's degree in environmental resource management, Geography, from National University of Ireland, Maynooth he worked for the Geological Survey of Ireland and then a prominent private environmental consultancy prior to joining MKO in 2013. Michael's professional experience includes managing Environmental Impact Assessments and Landscape & Visual Impact Assessments on behalf of clients in the wind farm, waste management, commercial and industrial sectors nationally. Michael worked on the capture and development of photomontages as well as compiling the Landscape & Visual Impact Assessments for some of the first wind turbines being proposed in Ireland in the early 2000's and has been compiling and reviewing LVIA chapters for multiple wind farm projects each year since 2013. Michael is a key member of the MKO senior management team and as head of the Environment Division has responsibilities to mentor various grades of team members, foster a positive and promote continuous professional development for employees. Michael also has a Bachelor of Arts Degree in Geography and Economics from NUI Maynooth, is a Member of IEMA, a Chartered Environmentalist (CEnv).

James Crean is an Environmental Scientist and LVIA Specialist with MKO. His primary role at MKO is producing the LVIA chapter of EIAR reports. James holds an MSc. in Applied Coastal and Marine Management from University College Cork. Since joining MKO, James has worked on a wide variety of renewable energy infrastructure, commercial, recreational, and residential projects. James' key strengths include proficiency in GIS tools such as ArcGIS and QGIS, conducting landscape and visual impact assessments and capturing image data through drone surveys and photomontages. James is an affiliate member with the Landscape Institute, with qualifications to fly drones in the A1, A2 and A3 subcategories.

13.1.2 Project Description and References to the Proposed Project in the LVIA

A full and detailed description of the Proposed Project can be found in the Chapter 4: Description of the EIAR. Section 4.1 of Chapter 4 describes the Proposed Project and its component parts, including the works subject of a proposed application for planning permission to An Coimisiún Pleanála (ACP).

The following references are used throughout this chapter and its associated appendices as per the definitions set out in Section 1.1.1 of Chapter 1: Introduction of the EIAR. The Proposed Project, Proposed Wind Farm and Proposed Grid Connection Route are described in detail in Chapter 4.

Terminology relating to the Proposed Project:

- "**Proposed Project**" refers to the entirety of the project for the purposes of this EIA in accordance with the EIA Directive. The Proposed Project is described in detail in Chapter 4 of this EIAR.
- **"the Site"** refers to the primary study area for the EIAR, as delineated by the EIAR Site Boundary in green as shown in Chapter 1, Figure 1-2 of this EIAR and encompasses an area of approx. 1,546ha.

- "**Proposed Wind Farm**" refers to turbines and associated foundations and hard-standing areas, access tracks, temporary construction compounds, onsite 110kV substation, internal underground cabling, onsite LiDAR compounds, peat and spoil management, site drainage, biodiversity enhancement, turbine delivery route (TDR) accommodation works and all ancillary works and apparatus. The Proposed Wind Farm is described in detail in Chapter 4 of this EIAR.
- "**Proposed Turbines**" refers to the 17 no. turbines associated with the Proposed Wind Farm as outlined above.
- "**Proposed Grid Connection Route**" refers to the 110kV underground cabling connecting the proposed onsite 110kV substation to the existing Srananagh 220kV substation, and all ancillary works and apparatus. The Proposed Grid Connection Route is described in detail in Chapter 4 of this EIAR.

Terminology relating to Dunneill and Kingsmountain Wind Farms:

- "**Existing Wind Farm**" refers to all components of the existing Dunneill and Kingsmountain Wind Farm developments as outlined in Chapter 1, Section 1.1.1 of this EIAR. Where differentiation is required between the Dunneill and Kingsmountain Wind Farms within the EIAR these are called out as necessary.
- "**Existing Grid Connection**" refers to the existing underground cabling connecting the existing onsite control buildings for the Existing Wind Farm to the existing Cunghill 110kV substation.

Terminology relating to the EIAR assessment phases:

- "**Construction Phase**" includes for the removal of the existing 23 no. turbines and the construction of the proposed 17 no. turbines and associated infrastructure on site.
- "**Operational Phase**" includes for the operation of the proposed 17 no. turbines on site.
- "**Decommissioning Phase**" includes for the decommissioning of the proposed 17 no. turbines on site.

13.1.3 Essential Aspects of the Proposed Project and Primary Focus of the LVIA

This LVIA follows the "Guidelines for Landscape and Visual Impact Assessment Third Edition" (hereafter, GLVIA3) published by the Landscape Institute (LI) & Institute of Environmental Management and Assessment (IEMA) (2013) and has regard to the "Notes and Clarifications on Aspects of GLVIA3: Landscape Institute Technical Guidance Note 2024-01" (hereafter, LI TGN 24-01) published by the LI (2024). The GLVIA3 states that:

> *"It is important to make sure that the project description provides all the information needed to identify its effect on particular aspects of the environment. For LVIA it is important to understand, from the project description, the essential aspects of the scheme that will potentially give rise to its effects on the landscape and visual amenity."*

The tall, vertical nature of the Proposed Turbines make them the most prominent elements of the Proposed Wind Farm from a landscape and visual perspective and have the most potential to give rise to significant landscape and visual effects. In this regard, the proposed removal of the existing 23 no. turbines and the installation of the 17 no. Proposed Turbines are deemed to be the "essential aspect" of the Proposed Project which will give rise to effects on the landscape and visual amenity and are the primary focus of the LVIA reported in this chapter.

Other components of the Proposed Wind Farm (e.g. proposed onsite substation, associated compounds etc.) are not deemed to be as visually prominent as the Proposed Turbines; however, they have the

potential to give rise to localised landscape and visual effects. Although not the primary focus of this LVIA, these elements are given full consideration throughout this chapter.

13.1.4 Scope of the LVIA in the Context of the Proposed Project

The 23 no. turbines of the Existing Wind Farm are operational and are currently visible in the existing baseline landscape. The Proposed Project includes removal of all 23 existing turbines (meaning removal from the physical landscape and therefore also from existing views), and installation of the 17 no. Proposed Turbines utilising existing wind farm infrastructure where possible, and all associated works.

In a "Do-Nothing Scenario," the 23 no. turbines of the Existing Wind Farm will be removed when their planning permission expires or they come to the end of their operational lifetime. This is envisaged as occurring over the next number of years. Whilst this LVIA compares and considers the Proposed Project against the existing baseline with respect to landscape and visual conditions, the ultimate determination of significant landscape and visual effects uses professional judgement to evaluate the impact of the Proposed Project on its own merit upon the landscape and upon visual amenity in the 'Do–Nothing' Scenario.

Importantly, it is material to the determination of residual landscape and visual effects that wind energy is well established within the landscape surrounding the Proposed Wind Farm and has been acceptably accommodated at this location.

13.1.5 Range of Turbine Dimensions Assessed in this Chapter

As detailed in the EIAR Chapter 1, the Proposed Turbines to be installed on the Proposed Wind Farm will have a ground-to-blade tip height, hub height and rotor diameter within the following ranges:

- Turbine Tip Height: 176.6-180 metres,
- Turbine Hub Height: 105-110 metres,
- Turbine Rotor Diameter: 133.2-150 metres.

The range of different turbine envelopes shown above are considered and assessed in this LVIA. The different turbine models assessed include the full extent of the range and are discussed below.

Primary Turbine Model used for Assessment

Scenario 1 is considered the primary representative configuration model for illustrating the Proposed Turbines and was used to derive all "Zone of Theoretical Visibility (ZTV)" mapping in this chapter (see Section 13.3.1, "ZTV Mapping") as well as to model all graphics for the photomontage viewpoints presented in the *EIAR Volume 2: Photomontage Booklet*.

- **Scenario 1:**
  - Tip Height: 180m,
  - Hub Height: 105m,
  - Rotor Diameter: 150m,
  - Represented by all 15 no. photomontage viewpoints assessed.

Scenario 1 has been identified as the most representative turbine configuration model for assessment on the basis that the greatest extent of the entire turbine structure (blades and tower) would potentially be visible from the official viewpoints assessed in this LVIA (described in Section 13.5.9 "Photomontage

Viewpoint Selection"). Please note, with respect to the scenario outlined above, due to the similarities between the turbine dimensions for Scenario 1 and the Scenario 2 (as defined in Table 1-3 in the EIAR Chapter 1), it is not warranted to conduct a specific assessment on Scenario 2 within this LVIA when assessing the identified turbine parameter range. Please refer to *Volume 2: Photomontage Booklet* viewpoints VP14 and VP15 for a comparison of all scenarios.

This turbine configuration is likely to show the greatest extent of the entire turbine structure (hub, blades and tower) and is likely to have the greatest visibility from the viewpoints assessed in this LVIA. The hub (or "nacelle") of a turbine is a prominent focal point and the visual prominence of a turbine is typically increased if the hub is viewed above a landscape feature, rather than below. Therefore, the **Scenario 1** turbine configuration is likely to increase the visual prominence of turbines and represents a theoretical precautionary scenario for likely "Significant" landscape and visual effects within the range proposed.

Assessing Turbine Dimension Range with Photomontages and Comparative Wirelines

Photomontage visualisations are the best LVIA tool to assess any likely effects arising due to differences of turbine configurations used within the proposed turbine dimension range. Irrespective of which combination of hub height and blade length within the **Scenario 1** range outlined above is installed on site, the significance of residual landscape and visual effects is unlikely to be altered. However, for the avoidance of doubt, two alternative turbine configurations are presented for two selected viewpoints included in the *EIAR Volume 2: Photomontage Booklet*:

- VP14: Doonbeakin (located 1.3km from the Proposed Turbines),
- VP15: SR-58 at Crumhach (located 1.2km from the Proposed Turbines).

As per the EIAR Chapter 1, these configurations are termed **Scenario 2** and **Scenario 3**; the detailed measurements are described in *Appendix 13-1: LVIA Methodology* (Section 1.6.7 "Turbine Range Assessment: Comparative Wirelines") as well as in this report in Section 13.7.3.2.10 "Assessment of Turbine Range Envelope."

The two above selected viewpoints are representative of short-range views where the difference in the scale of the Proposed Turbines is most likely to be perceptible. The photomontage assessment tables for these viewpoints contained in *Appendix 13-2: Viewpoint Assessment Tables* include a comment addressing the alternative turbine configurations and confirm that the turbine configuration ultimately installed on-site will not alter the assessment of residual visual effects.

Differences in the turbine range are only discernible through the aid of a comparative wireline views where the different model is overlain the other configuration used for all viewpoints (see *Appendix 13-1* for more information on comparative wireline views presented). As demonstrated by the visualisations of the proposed turbine ranges presented in the *Photomontage Booklet*, irrespective of which combination of hub height and blade length within the range outlined in this application is installed on-site, the significance of residual landscape and visual effects as set out below in this LVIA in Section 13.7 "Likely Significant Landscape and Visual Effects" will not be altered.

13.1.6 Mitigation by Design

The Proposed Wind Farm was strategically selected as a landscape highly suitable for the development of wind energy. Through the iterative project design process, various best practice tools for assessing the landscape and visual impact of a proposed wind farm development were utilised to bring forward the optimum design for the Proposed Project with respect to landscape and visual factors. These tools include landscape modelling, Zone of Theoretical Visibility (ZTV) mapping and the preparation of photomontage visualisations.

The iterative design process was informed by the siting and design guidance for wind farms in specific landscape types as set out in the "Wind Energy Development Guidelines for Planning Authorities" published by Department of the Environment, Heritage, and Local Government (DoEHLG) 2006, hereafter, the **"Guidelines (DoEHLG, 2006)**" and with regard to the "Draft Revised Wind Energy Development Guidelines" published by Department of Housing, Planning and Local Government (DoHPLG) 2019, hereafter the **"Draft Guidelines (DoHPLG, 2019)**."

The final design of the Proposed Project included the removal of potential proposed turbines and the careful micro-siting of infrastructure with the aim of preventing the potential for significant landscape and visual effects. Details of the various turbine layout iterations included as part of this design process are included in the EIAR Chapter 3: Site Selection and Reasonable Alternatives.

Landscape and visual "mitigating" factors which were key to the site selection and design of the Proposed Project are listed here; these factors are of key relevance to the LVIA:

- **Established Wind Energy Landscape:** The Proposed Turbines are seen within a landscape where wind energy is well established and has been acceptably accommodated in the landscape of the site and turbines will exist in both an "Existing" and "Do-Nothing" Scenario.
- **Appropriate Scale and Limited Visibility**. The turbines are sited strategically within a landscape capable of accommodating a wind energy development of this scale. The site is an area surrounded by substantial topographical features which both eliminate visibility of the turbines from a large portion of the LVIA Study Area and provide a sense of scale that causes the turbines to appear congruous and appropriately scaled within the landscape type in which they are viewed.
- **Appropriate Siting and Design for Landscape Character Type in the Wind Energy Development Guidelines**. The Proposed Turbines are sited at lower elevations of the steep mountainside within an appropriate spatial extent for the broad landscape and with regular staggered spacing in a mix of random and clustered layout of slightly uneven height profile that follows the rugged topography, thereby aligning with best practice siting and design for wind energy developments in the Mountain Moorland landscape character type (the Guidelines (DoEHLG, 2006), the Draft Guidelines (DoHPLG, 2019)).
- **Alignment with Wind Energy Development Guidelines Set-Back Distance:** The Proposed Project exceeds the recommended 500m setback from residences set out in the Guidelines (DoEHLG, 2006) and adheres to the prescribed 4-times-tip-height (720m) setback distance for residential visual amenity in the Draft Guidelines (DoHPLG, 2019).
- **Makes Use of Existing Infrastructure:** Where possible, the Proposed Project makes use of the existing wind farm infrastructure and access tracks of the Existing Wind Farm, thereby reducing the requirement for new internal site roads or grid infrastructure and reducing the extent of direct landscape effects on the site.
- **Underground Grid Connection:** The intended connection to the national electricity grid is underground, thereby eliminating potential landscape and visual effects during the operational phase.

13.1.7 Pre-Planning Meeting Topics in LVIA

Pre-planning consultation meetings took place with ACP in November 2024 and in December 2025 with members of MKO, ACP and the Applicant (SSE Renewables (Ireland) Ltd), at which the following LVIA topics were raised in relation to the Proposed Project:

- Ensure that enough viewpoints are selected to cover all appropriate areas of the study area where the ZTV indicates theoretical visibility, including areas to the southeast.

- Ensure good assessment of the visual impact of turbines being visible above the ridgeline.
- Provide rationale to scope out receptors and areas of the ZTV with partial theoretical visibility, where needed, including specific receptors noted in the southeast of the study area.

In addition, a specific request was made for the LVIA to "*carry out modelling work to show a clear baseline environment and that imagery will also capture the existing turbines.*" It was clarified by MKO in the meeting that the baseline photomontage will be modified to remove the existing turbines in the visuals and thereby accurately depict the future landscape with only the proposed Crumhach turbines. This has been carried out in the graphics works.

13.1.8 Consideration of Alternative Turbine Layouts in Early-Stage Pre-Planning

The landscape and visual impacts were considered as part of the early-stage planning process. Alternative turbine layouts were generated for a series of preliminary ZTV maps and photomontages in order to assess the extent to which alternative turbine configurations may give rise to visual effects. These early-stage assessments enabled the choice of suitably sited turbines for the Proposed Project with regard to mitigating any potential adverse landscape and visual effects. For more information on alternative designs, please see the EIAR Chapter 3: Site Selection and Reasonable Alternatives.

Numerous turbine layouts have been considered throughout the differing design phases of the Proposed Project; these are detailed in Section 3.2.3 of Chapter 3. The current proposed turbine layout utilises far fewer turbines than was previously proposed in earlier design iterations. The Proposed Project location and current layout minimises the theoretical potential for visibility and the site visits and assessment tools show that the actual visibility is far less than the theory. Where visibility does occur, the design is in accordance with best practice and a coherent project which neatly assimilates with the receiving landscape.

13.2 Methodology and Assessment Criteria

13.2.1 LVIA Wind Energy Context

Given Ireland's renewable energy targets which have been set by the State for onshore renewable wind energy development, wind turbines will form a new component in the working landscape for the foreseeable future. The focus for visual impact assessment of wind energy developments is therefore distance, arrangement, location and potential disruption to key scenic sensitivities rather than a commonly misconceived focus on whether turbines are visible or not from a particular vantage point.

The outcome of the visual impact assessment, with regards to the definition of significance in the "Guidelines on the Information to be contained in Environmental Impact Assessment Reports" published by EPA (2022), is calibrated in the overall context of LVIA of wind energy developments in Ireland and what is acceptable in the context of emerging baseline trends and the acceptability of wind turbines within views as a result of national policy.

Over time, wind turbines have, and will become, a more familiar and accepted component of the Irish landscape, particularly in working rural contexts. Accordingly, their presence may not carry the same level of perceived visual intrusion as less common or incongruous forms of development. In this context, the calibration of visual impact significance reflects both the policy-driven imperative for renewable energy development and the evolving visual baseline in parts of the Irish landscape. While the visibility of turbines remains an important consideration, it does not in itself equate to significant visual impact.

Key factors of focus in the overall impact assessment on visual receptors in relation to photomontages are:

- The perceived scale of turbines as a result of setback distance,
- The number of turbines visible,
- The degree of visibility of turbines, e.g. are they fully or partially screened by features,
- The perceived horizontal extent of turbines, e.g. how wide of an extent within the field of view do the turbines occupy in terms of what is experienced by receptors, given their composition within both the 53.5-degree or 90-degree fields of view shown in the *Photomontage Booklet*,
- Overall visual coherency with regards to form and arrangement and how the turbines correspond to the landscape from a particular vantage point as per best practice siting and design guidance.

13.2.2 Scope and Definition of LVIA Study Area

In this LVIA, the Proposed Wind Farm is the key focus of the assessments as the Proposed Turbines are the primary essential aspect of the Proposed Project under assessment of the LVIA (see Section 13.1.3 above). However, the assessment of effects on landscape and visual amenity uses wider study areas beyond the Proposed Wind Farm. Please refer to the detailed rationale of study area selection in *Appendix 13-1: LVIA Methodology*; a brief overview is described here.

For this assessment, two study areas with different radii are defined with respect to the location of the Proposed Turbines:

- 25km LVIA Study Area for the assessment of effects on landscape and visual receptors, hereafter referred to as the "**LVIA Study Area**,"
- 15km LCA Study Area for the assessment of effects on designated "Landscape Character Areas" (LCAs), hereafter referred to as the "**LCA Study Area**."

The LVIA Study Area was chosen to be 25km from the Proposed Turbines for landscape and visual effects due to the presence of a portion of the Sligo Passage Tomb Landscape within the LVIA Study Area, located approximately 15km east from the Proposed Turbines. The Sligo Passage Tomb Landscape is currently on Ireland's Tentative List—a preliminary inventory of potential cultural or natural sites which Ireland plans to nominate for UNESCO World Heritage status, and four key features within this landscape (refer to Section 13.4.6.2 below) were identified within 25km of the Proposed Wind Farm. As per the Guidelines (DoEHLG, 2006) (p.95) and the Draft Guidelines (DoHPLG, 2019) (p.152), the distance at which the Zone of Theoretical Visibility (ZTV) is set from a proposed wind farm development defines the parameters of the LVIA Study Area with relation to high sensitivity landscapes:

> *"In areas where landscapes of national or international renown are located within 25km of a proposed wind energy development, the Zone of Theoretical Visibility should be extended as far (and in the direction of) that landscape. This reflects the fact that highly sensitive landscapes deserve extra special treatment by developers and planners."*

On the basis of desk studies and survey work undertaken, as well as the professional judgement of the assessment team, experience from other relevant projects and policy guidance or standards, the following topic areas have been scoped out of the assessment:

- Effects on landscape and visual receptors that have minimal or no theoretical visibility (as highlighted by the ZTV) and/or very distant visibility and are therefore unlikely to be subject to significant effects.

- Effects on designated landscapes beyond a 25km radius from the Proposed Turbines, from where it is judged that potential significant effects on key characteristics and/or special qualities, or views are judged unlikely to occur.
- Effects on designated LCAs beyond a 15km radius from the Proposed Turbines, where it is judged that potential significant effects on landscape character are unlikely to occur.
- Effects on visual receptors beyond a 25km radius from the Proposed Turbines, where it is judged that potential significant effects are unlikely to occur.
- Cumulative landscape character effects beyond a 15km radius and cumulative landscape & visual effects beyond a 25km radius from the Proposed Turbines, where it is judged that potential significant effects are unlikely to occur.
- Cumulative effects in combination with single turbines with a tip height less than 50m which are located at distances greater than 5km from the Proposed Wind Farm, where it is deemed no significant cumulative effects are likely to occur in combination with the Proposed Wind Farm.

13.2.3 Guidance

The legislation and general guidance on Environmental Impact Assessment is set out in Chapter 1 of this EIAR. The LVIA reported in this chapter was guided and informed by guidance documentation specifically pertaining to LVIA. Details of the guidance used to conduct this LVIA are outlined in *Appendix 13-1: LVIA Methodology* (Section 1.3 "Guidance and Local Policy").

13.2.4 Baseline Landscape and Visual Information

Landscape Baseline. In order to carry out this assessment, an initial desk study of the following landscape baseline information was undertaken to inform the LVIA:

- Landscape Policy Context:
  - Policies, objectives and designations contained in the relevant county development plans pertaining to landscape and wind energy.
- Landscape Character Areas & Preliminary Analysis:
  - Landscape Character Areas (LCAs) in the LCA Study Area and preliminary analysis of LCAs scoped in for assessment.
- Landscape Character of the Proposed Wind Farm:
  - Landscape character descriptions of the Proposed Wind Farm based on site surveys undertaken in May 2025, February 2026 and March 2026.
- Landscape Sensitivity of the Proposed Wind Farm:
  - Assigning an overall "Sensitivity" rating to the Proposed Wind Farm and its surrounding area according to its "Value" and "Susceptibility to Change" based on the appraisal of multiple indicators.
- Guidance for Siting and Design from Wind Energy Development Guidelines:
  - Landscape characterisation of the Proposed Wind Farm as indicated in wind energy guidance of the Guidelines (DoEHLG, 2006) and the Draft Guidelines (DoHPLG, 2019).
- Wider Landscape Setting:
  - Landscape character and key sensitivities of the wider landscape setting of the LVIA Study Area, including historic and archaeological landscape characterisation.
- Landscape Receptors Preliminary Analysis
  - Indicates the selection and rationale for landscape receptors scoped in for assessment in the LVIA, and receptors scoped out.

Visual Baseline. An initial desk study of the following visual baseline information was undertaken to inform the LVIA:

- Visibility of the Proposed Turbines in the 25km LVIA Study Area:
  - ZTV mapping,
  - Visibility appraisal within 3-5km of the Proposed Turbines through Route Screening Analysis (RSA), a method developed by MKO to quantify on-the-ground visual screening relative to the Proposed Turbines.
- Identification of visual receptors in the LVIA Study Area:
  - Designated scenic routes and protected views,
  - Recreational trails,
  - Popular recreational, cultural heritage and tourist destinations,
  - OSi viewing areas,
  - Settlements,
  - Primary transport routes,
  - Residential receptors in close proximity.
- Preliminary analysis of visibility from visual and residential receptors according to ZTV mapping and on-site visibility appraisals.
- Identification of 15 no. viewpoints (VP01-VP15) representing visual receptors throughout the LVIA Study Area, selected for photomontage visualisation in the *Photomontage Booklet* and visual impact assessment in the LVIA.

13.2.5 Assessment of Potential Impacts

The LVIA process used in this chapter is presented in *Appendix 13-1: LVIA Methodology* and includes clearly documented methods based on guidelines of the GLVIA3 (LI & IEMA, 2013) as follows.

The LVIA considers landscape and visual "Sensitivity" balanced with the "Magnitude of Change" to determine the likely significance of effects. Mitigating factors are then considered to arrive at "Residual" landscape and visual effects. Residual landscape and visual effects are graded upon an "impact assessment classification of significance" scale, as defined by the EPA (2022) ranging as follows: "Imperceptible," "Not Significant," "Slight," "Moderate," "Significant," "Very Significant" or "Profound"; see definitions of these ratings quoted in *Appendix 13-1*. In the case of the Proposed Project, no landscape or visual effects greater than "Moderate" are predicted; all predicted effects are reported in Section 13.7 "Likely Significant Landscape and Visual Effects."

In addition, the duration of effects is reported following the definitions within of EPA (2022) categories, in the case of the Proposed Project either "Temporary," (less than 1 year) "Short-Term," (1-7 years) "Long-Term" (15-60 years), "Permanent" (greater than 60 years) or "Reversible." The quality of effects is reported as "Negative," "Neutral" or "Positive" and involves a degree of subjectivity. The indication of "Direct" or "Indirect" effects is also reported.

Photomontages are used as an illustrative tool to assess potential impacts, whereby the potential landscape and visual effects arising as a result of the Proposed Turbines are assessed from viewpoint locations representative of prominent landscape and visual receptors located within the LVIA Study Area. Throughout this chapter, "theoretical visibility" is referred to, based on ZTV mapping (see next Section 13.3 Visibility of the Proposed Turbines), and is assessed to compare "theoretical" versus "actual" visibility. The detailed methods used to produce ZTV maps and photomontages are included in *Appendix 13-1* (Section 1.5 "Visibility Mapping: ZTV").

13.3 Visibility of the Proposed Turbines

13.3.1 Zone of Theoretical Visibility (ZTV) Mapping

Zone of Theoretical Visibility (ZTV) mapping is an important step in the LVIA process, in that it illustrates which areas within the LVIA Study Area have theoretical visibility of the Proposed Turbines and shows definitively which areas have no theoretical visibility. The ZTV mapping methodology outlined in *Appendix 13-1: LVIA Methodology* was used to examine the theoretical visibility of the 17 no. Proposed Turbines from all landscape and visual receptors within the LVIA Study Area, using the half-blade tip height of the wind turbines as points of reference, which is calculated using the known hub height and rotor diameter of the Proposed Turbines. As the Proposed Turbines range in size in terms of hub height and rotor diameter (Hub Height range = 105m-110m; Rotor Diameter range = 133.2m-150m), for the avoidance of doubt the maximum values (Hub Height 110m; Rotor Diameter 150m) were used to calculate the ZTV, thereby representing the overall maximum potential for visibility of the tallest of the Proposed Turbines in a bare-ground scenario.

As noted in *Appendix 13-1*, because the ZTV is calculated assuming a bare-ground scenario not accounting for visual screening by above-ground features including trees, vegetation, or built infrastructure, the potential for actual visibility of the Proposed Turbines on the ground is significantly less than the theoretical visibility predicted by the ZTV mapping. Additional factors contributing to reduced potential for visibility of the Proposed Turbines include the disproportionate screening effect (i.e. the perception of turbines appearing smaller with increased distance from the turbine) and atmospheric weather, both of which obscure visibility. Finally, the generation of the ZTV utilises large scale topographical data (interpolation across 10m OSi contour data) and does not account for topographical variation of smaller scale (i.e. localised undulations less than 10m in height). Therefore, on the ground, modest and localised undulations in topography that may not be represented in the ZTV map are likely to further inhibit visibility of the Proposed Turbines.

Overall, the ZTV is a useful tool to indicate definitive areas with no visibility of the Proposed Turbines, and thus, receptors located within such areas can be scoped out from further assessment.

13.3.2 ZTV Map and Physical Landscape Features

Separate colour bands are used on the ZTV Map to indicate the number of Proposed Turbines (of which the half-blade will potentially be visible, shown on Figure 13-1 below. The legend one the map shows the number of visible turbines for each corresponding colour, which are as follows:

- **Orange**: 1-4 turbines theoretically visible,
- **Teal**: 5-9 turbines theoretically visible,
- **Yellow**: 10-14 turbines theoretically visible,
- **Grey**: 15-17 turbines theoretically visible.

Following this, Figure 13-2 shows the topographical features and elevation gradients existent within the receiving landscape of the LVIA Study Area. Briefly, the landscape is dominated by the Ox Mountains, a SW-NE trending mountain range through the centre of the LVIA Study Area. Within the Ox Mountains, the closest peaks to the Proposed Turbines are Knockachree, Knockalongy and Annatoran, located immediately east of the Proposed Wind Farm with elevations reaching over 550m AOD (Above Ordnance Datum). To the west and north of the Ox Mountains, the terrain gradually declines into mid-elevation hills and slopes and then into lowland coastal areas and broad plains, where elevations drop to sea level. Key rivers in the LVIA Study Area include the Easky and Gowlan Rivers which drain the Ox Mountains range to the west, and the Brusna River which drains southwest into Co. Mayo. To the east and south of the Ox Mountains, the landscape of the LVIA Study Area mainly comprises lowland agricultural plains which are low-elevation and rural in nature; there is primarily no theoretical visibility from this area.

Map Legend

- Ireland County Boundaries
- LVIA Study Area (25km)
- Proposed Turbines

Zone of Theoretical Visibility (ZTV)

- 1-4 Turbines Theoretically Visible
- 5-9 Turbines Theoretically Visible
- 10-14 Turbines Theoretically Visible
- 15-17 Turbines Theoretically Visible

Sligo Bay

Killala Bay

Co. Sligo

Co. Mayo

5 km

10 km

15 km

20 km

25 km

0 2.5 5 km

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Drawing No.

Figure 13-1

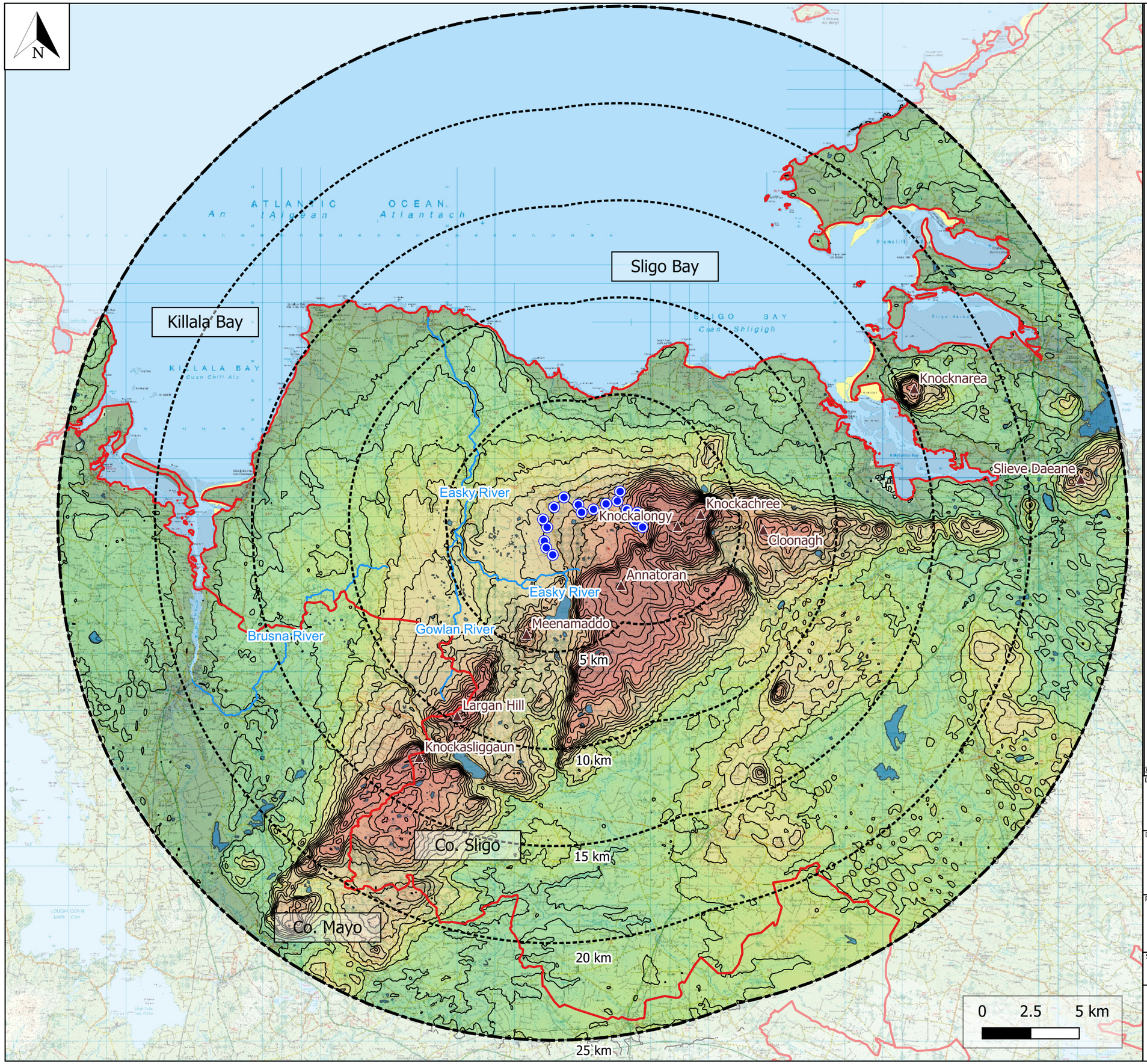
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Zone of Theoretical Visibility (ZTV) Map

Project Title

Crumhach Wind Farm, Co. Sligo

Scale	Project No.	Date	Drawn By	Checked By
1:190,000	230841	2026.06.11	RS	MW



Map Legend

- Ireland County Boundaries
- LVIA Study Area (25km)
- Proposed Turbines
- Lakes in the LVIA Study Area
- Rivers in the LVIA Study Area

Elevation AOD (metres)

- 1
- 25
- 50
- 75
- 100
- 150
- 200
- 250
- 300
- 350
- 400
- Contours (25m)

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Figure 13-2

Drawing Title

Physical Landscape Features Map

Project Title

Crumhach Wind Farm, Co. Sligo

Scale	Project No.	Date	Drawn By	Checked By
1:190,000	230841	2026.06.11	RS	MW

13.3.3 Theoretical Visibility of the Proposed Turbines

13.3.3.1 Theoretical Visibility in the LVIA Study Area

Due to the position of the Proposed Turbines in an upland area at the western foot of the Ox Mountains, there is largely no visibility of the Proposed Turbines to the east, south and southwest, which comprises a vast proportion of the LVIA Study Area, as shown by the non-coloured area in the ZTV Map (Figure 13-1).

Within 5km of the Proposed Turbines, there is a large area of full theoretical visibility to the west and southwest, corresponding with the lowland coastal areas and broad plains as the landscape begins to descend towards the coastline. To the east and south of the Proposed Turbines, Knockalogy, Annatoran and other peaks of the Ox Mountains range provide visual containment of the Proposed Turbines, reducing or eliminating the potential for visual exposure in these directions.

Beyond 5km of the Proposed Turbines, the landscape to the west and southwest gently slopes downward toward the Atlantic coastline, creating conditions for mostly full theoretical visibility in these directions. Theoretical visibility in the landscape area of Co. Mayo in the far southwest portion of the LVIA Study Area is mixed due to slightly steeper terrain, part of the southern end of the Ox Mountains range. Beyond 5km to the northeast of the Proposed Turbines, a moderate area of partial theoretical visibility is indicated from the lowland coastal plains descending to Sligo Bay. Beyond 5km to the east and south, the landscape comprises lowland agricultural and rural areas with primarily no theoretical visibility.

Theoretical Visibility in the Sligo Passage Tomb Landscape

A portion of the Sligo Passage Tomb Landscape, the nationally renowned historical landscape with very high historical, cultural and archaeological value, is located in the northeastern portion of the LVIA Study Area approximately 15km from the Proposed Turbines at its closest point. One small portion of this landscape area at its western tip, where Knocknarea peak is located, shows theoretical visibility. The Sligo Passage Tomb Landscape is included on Ireland's tentative list as a potential UNESCO Heritage Site and the policy context with regard to LVIA and selected landscape and visual receptors is discussed in Section 13.4.6.2 below, and the onsite visibility appraisal of Sligo Passage Tomb Landscape is discussed in the Visual Baseline Section 13.5.7.

Areas in the South-Southeast and Northeast of the LVIA Study Area with Additional Theoretical Visibility

In the south-southeast of the study area, the ZTV Map shows a few areas highlighted showing Partial theoretical visibility, 1-4 turbines and 5-9 turbines at distances of greater than 15km and greater than 20km from the Proposed Wind Farm.

While the ZTV Map suggests potential visibility from these areas, the likelihood of actual visibility is extremely low and these areas have been scoped out of the assessment for the following reasons. First, the ZTV presents a "bare-ground scenario" meaning that it does not take into account above-ground features such as trees, roadside vegetation, buildings or localised undulations in topography less than 10m height around the area of the viewer. In practice, these features substantially limit the potential for actual visibility in the direction of the Proposed Turbines. Second, any areas with actual potential for visibility of the Proposed Turbines will be located a very great distance from the Proposed Wind farm site thus any visible elements of turbines are very unlikely to be discernible and therefore the effect would be no more than imperceptible at this distance—please refer to Section 1.5.2 and Figure 1-1 of *Appendix 13-1: LVIA Methodology* which discuss the effect of distance on the visibility of wind turbines.

Similarly in the northeast of the study area, beyond the Ox Mountains range, one area of the coastal lowlands along Sligo Bay shows mixed theoretical visibility ranging from None to Full. In this area, the N59 and L2204 Local Road both run in E-W orientation at distances between 5-10km from the Proposed Turbines and the landscape is primarily a sparsely settled modified working landscape. The areas of highest theoretical visibility are located closer towards the location of the Proposed Turbines on the northwestern foothills of Ox Mountains range and are represented by photomontage viewpoints VP03, VP04 and VP05 (see Section 13.5 Visual Baseline). For the areas with Partial theoretical visibility, the onsite visibility appraisal found that the likelihood of actual visibility from these areas is extremely low owing to the distance from the Proposed Wind Farm and the nature of roadside visual screening and screening by localised undulations in the topography; therefore, these areas have been scoped out for further assessment.

13.3.3.2 Comparative Theoretical Visibility with that of the Existing Wind Farm

Methodology and Comparative ZTV Map

The current degree of visibility of wind turbines within this landscape is set to change with the proposed removal of the 23 no. Existing Wind Farm turbines.

This section conducts an analysis to identify whether the Proposed Project adds new areas of theoretical visibility of wind turbines within the landscape as compared to the current theoretical visibility of the existing 23 no. Existing Wind Farm turbines. Areas from which wind turbines can already be viewed within the landscape would likely experience a lesser degree of landscape and visual impact in terms of the "magnitude of change," whereas areas with new visibility of wind turbines within the landscape could experience a greater degree of change.

ZTV mapping is a useful tool for this element of the assessment. A Comparative ZTV Map (see Figure 13-3 below) has been produced as a visual aid to analyse and to compare the difference in the spatial distribution of theoretical visibility between the Existing Wind Farm and the Proposed Turbines in the LVIA Study Area. The Comparative ZTV Map accounts for the differing dimensions of the multiple turbine layouts (existing and proposed) using three separate colour bands as follows:

- **Blue**: Areas with theoretical visibility of the Existing Wind Farm turbines only.
- **Grey**: Areas where the Existing Wind Farm turbines are theoretically visible in the landscape, that overlap with areas where the Proposed Turbines are theoretical visible.
- **Yellow**: Areas from which the Proposed Turbines add new theoretical visibility of wind turbines into the landscape.

The ZTV map is used to enable assessment of theoretical visibility from landscape and visual receptors, where there may be views of turbines where there were no views previously. Where the Proposed Turbines increase the theoretical visibility in the LVIA Study Area this is termed "new areas of theoretical visibility" in the discussions below.

Map Legend

- Ireland County Boundaries
- LVIA Study Area (25km)
- Proposed Turbines
- Existing Wind Farm Turbines (to be dismantled and removed)

Comparative Zone of Theoretical Visibility (ZTV)

- Theoretical Visibility of the Existing Turbines Only
- Theoretical Visibility of the Existing Turbines and also the Proposed Turbines
- Theoretical Visibility of the Proposed Turbines Only (indicating new areas of increased theoretical visibility)

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Drawing No.

Figure 13-3

Drawing Title

Comparative ZTV Map with the Existing Wind Farm

Project Title

Crumhach Wind Farm, Co. Sligo

Scale	Project No.	Date	Drawn By	Checked By
1:190,000	230841	2026.06.11	RS	MW

MKO

Distribution of Areas with New Theoretical Visibility

As shown by the distribution of grey area in Figure 13-3 above, the Proposed Turbines will primarily be theoretically visible in areas where Existing Wind Farm turbines are already theoretically visible within the landscape, for the vast majority of the LVIA Study Area in the north and west.

Within 5km of the Proposed Turbines, areas of new theoretical visibility are located to the south of the Proposed Wind Farm, mainly located in uninhabited mountainous terrain with bogs and forestry. Figure 13-4 below compares the new areas of new theoretical visibility with the number of turbines theoretically visible according to the standard ZTV Map.

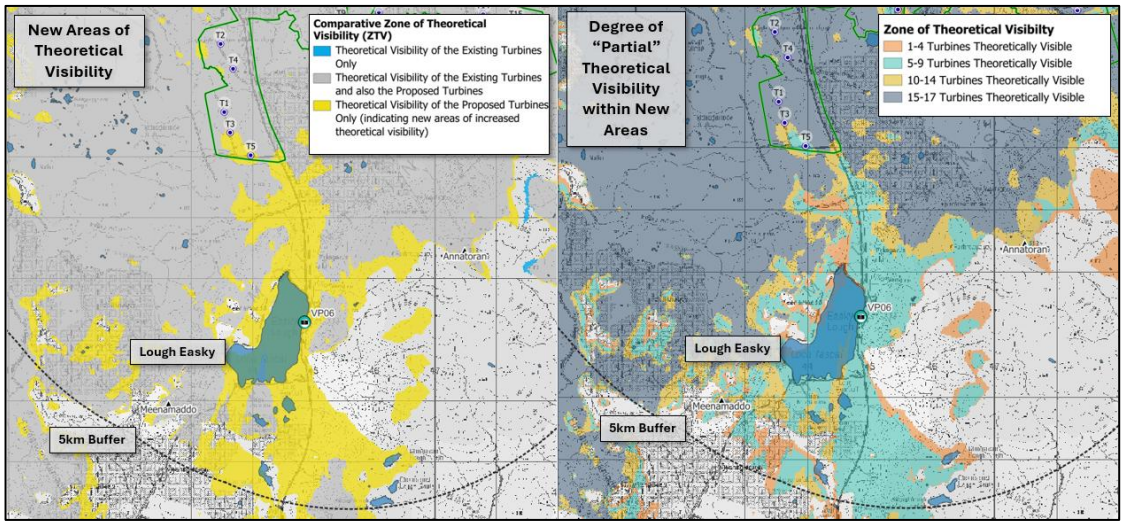


Figure 13-4: Comparison showing the degree of "Partial" theoretically visible in new areas of increased theoretical visibility to the south of the Proposed Turbines

The right panel of Figure 13-4 above shows that the degree of theoretical visibility is "Partial" mainly ranging from five to nine turbines theoretically visible and the nearest receptor is the landscape feature of Lough Easky which is encircled by a recreational trail. One viewpoint, VP06 is located in this area and demonstrates limited visibility from Lough Easky and its surrounding trails and was found to have "Not Significant" residual visual effects; see discussion of visual effects on recreational receptors in Section 13.7.3.2.3. This area is uninhabited and no dwellings or residential receptors are located in this area.

In the wider LVIA Study Area, additional new areas of increased theoretical visibility are located in the south of the study area at a distance of greater than 15km, and to the northeast of the Proposed Turbines within 5-10km from the Proposed Wind Farms site. The degree of theoretical visibility in these areas is also "Partial" and the potential landscape and visual effects are likely to be none to very limited. These areas are considered in the scoping of landscape and visual receptors below in Section 13.4 "Landscape Baseline" and Section 13.5 "Visual Baseline."

13.3.4 Onsite Visibility Appraisal

This LVIA conducted onsite visibility appraisal to investigate areas of theoretical visibility and determine the actual potential for visibility in the direction of the Proposed Turbines versus what is indicated by the ZTV Map. In practice, vast areas of the 25km LVIA Study Area which have an indication of full theoretical visibility (15-17 no. turbines theoretically visible) are anticipated to have little to no actual visibility of the Proposed Turbines, due to natural above-ground screening factors existent within the landscape.

Field surveys conducted in May 2025, February 2026 and March 2026 determined that screening from localised undulations in topography (less than 10m in height), as well as the presence of existing roadside vegetation and built structures, and considering distance, the likelihood of viewing the Proposed Turbines from large areas of the LVIA Study Area is significantly reduced. The onsite visibility appraisal, along with ZTV mapping, photomontage capture, and site walkover, is an important tool informing the impact assessments and analysis of visibility in this chapter and included the Route Screening Analysis (RSA) exercise, detailed in the next Section 13.3.5.

13.3.5 Route Screening Analysis (RSA): Visibility in Close Proximity

13.3.5.1 Route Screening Categories

Route Screening Analysis (RSA) was carried out within a 3km radius of the Proposed Turbines, in February 2026. All local roads within 3km were assessed, while the major transport route, N59 National Road, was assessed to 5km from the Proposed Turbines. For the avoidance of doubt in certain areas, selected additional local road networks were also assessed to 5km.

RSA was conducted to record the varying degrees of visual screening along the local road network and demonstrate the actual potential for visibility of the Proposed Turbines compared to ZTV mapping. The full methodology is outlined in *Appendix 13-1: LVIA Methodology* (Section 1.5.3 "Onsite Visibility Appraisal: RSA").

The RSA visual screening categories are:

- "**Little/No**" visual screening: areas of the road that are mainly open with open views in the direction of the Proposed Turbines (see example below in Plate 13-1),
- "**Intermittent/Partial**" visual screening: areas of the road where there are intermittent or partial views in the direction of the Proposed Turbines (see Plate 13-2),
- "**Dense/Full**" visual screening: areas of the road with dense visual screening, sufficient to block views in the direction of the Proposed Turbines (see Plate 13-3).

The imagery of visual screening examples shown below in Plate 13-1 through Plate 13-3 were captured within the LVIA Study Area, within 3km of the Proposed Turbines.



Plate 13-1 Example of "Little/No" visual screening from within 3km of the Proposed Turbines



Plate 13-2 Example of "Intermittent/Partial" visual screening from within 3km of the Proposed Turbines



Plate 13-3 Example of "Dense/Full" visual screening from within 3km of the Proposed Turbines

13.3.5.2 RSA Results

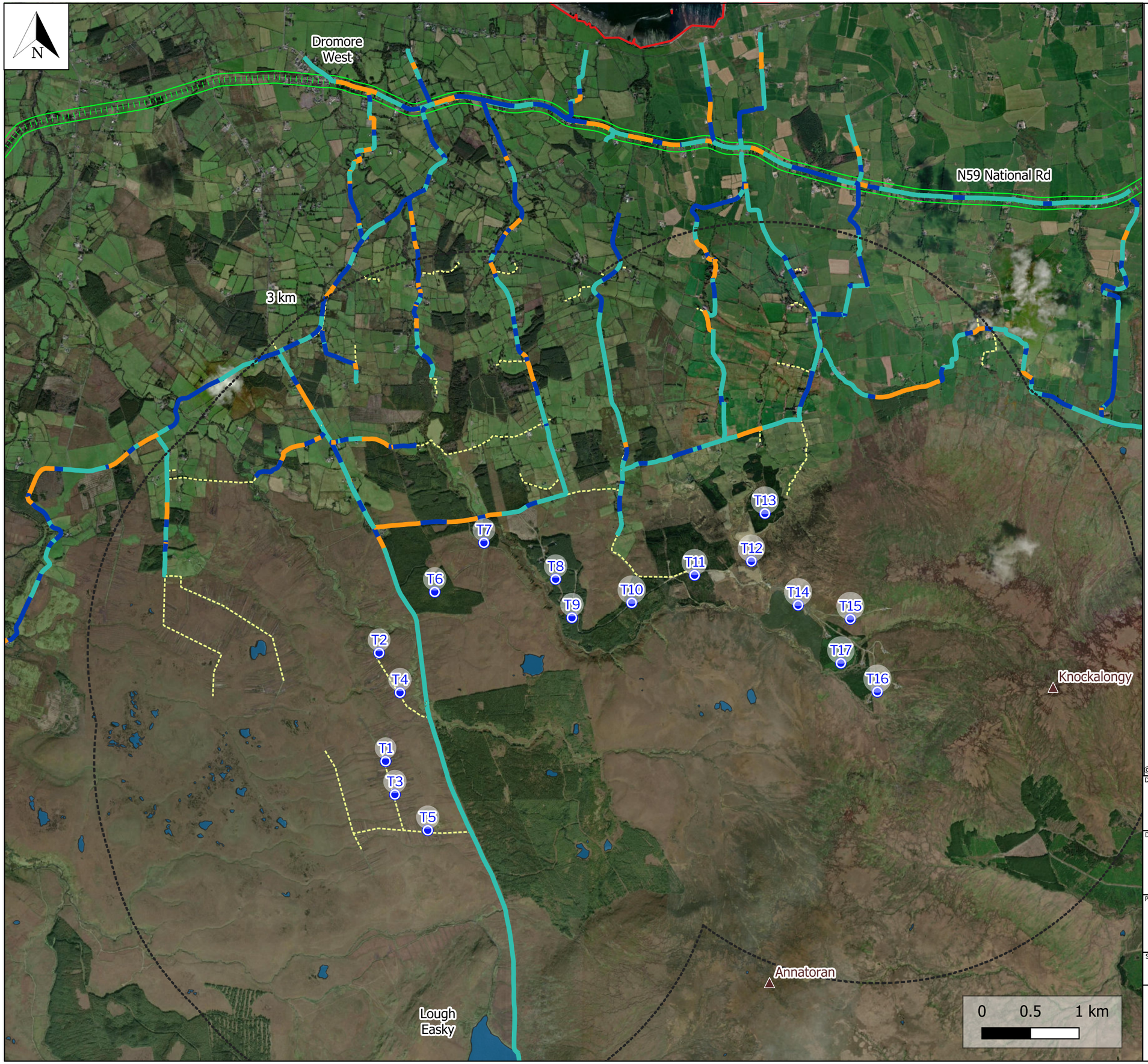
Table 13-1 Route Screening Analysis Results

Screening Class	Length of Road Mapped in Figure 13-5	Percentage Distribution of Screening Class on Surveyed Roads
"Little/None"	38.7km	53.5%
"Intermittent/Partial"	23.1km	32.0%
"Dense/Full"	10.5km	14.5%

For this LVIA, the distribution of visual screening on 72.3km of public roads was recorded during the RSA survey. The results of the route screening survey are mapped in Figure 13-5; illustrating the distribution of screening classifications on public roads within 3-5km of the Proposed Turbines.

The RSA results report the extent and density of visual screening present along the local road network in the immediate vicinity of the Proposed Wind Farm. This allows the actual likely visibility of the Proposed Turbines to be considered and assessed in an objective and quantitative manner, thereby reducing the level of subjectivity involved in determining the actual potential for the Proposed Turbines to be viewed from within the local landscape immediately around the Proposed Wind Farm.

Table 13-1 above shows the RSA results of the survey, indicating that more than 45% of the surveyed roads have some form of visual screening in the direction of the Proposed Turbines, either Intermittent/Partial or Dense/Full. The RSA results were also utilised to investigate the potential visual effects on local residential receptors within 2-3km of the Proposed Turbines; refer to Section 13.7.3.2.9 “Effects on Local Residential Receptors.”



Map Legend

- Ireland County Boundaries
- Proposed Turbines
- Local Roads to 3km
- N59 National Road

Route Screening Analysis (RSA) Categories

- Class 1 - Little/No Screening
- Class 2 - Intermittent/Partial Screening
- Class 3 - Dense/Full Screening

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Drawing No.

Figure 13-5

Drawing Title

Route Screening Analysis (RSA) Map

Project Title

Crumhach Wind Farm, Co. Sligo

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1:40,000	230841	2026.06.11	RS	MW

13.4 Landscape Baseline

13.4.1 Landscape Policy Context

Figure 13-6 below maps all identified landscape policy designations for the LVIA Study Area and this section details the relevant reported local policies and planning objectives. Wind energy zoning is mapped separately in Section 13.4.1.6 below and Landscape Character Areas (LCAs) are mapped separately in the next Section 13.4.2.

The following county development plans and their relevant appendices were consulted for this LVIA; see the detailed list of relevant maps, figures and appendices in *Appendix 13-1* Section 1.7.1 "Identifying Landscape Receptors":

- Sligo County Development Plan (SDCP) 2024-2030,
- Mayo County Development Plan (MCDP) 2022-2028.

The sections to follow, Section 13.4.1.1 through Section 13.4.1.6 are divided into the type of policy designations identified in the CDPs within the LVIA Study Area and provide the relevant policies to consider from a landscape and visual perspective and with regard to wind energy development, for the Proposed Project:

- Designated Scenic Routes and Views,
- Landscape Sensitivity Designations,
- Historic Landscape Characterisation and Landscape Conservation Areas,
- Landscape Policy Areas,
- Designated Vulnerable Features,
- Wind Energy Zoning.

Map Legend

- Ireland County Boundaries
- LVIA Study Area (25km)
- Proposed Turbines
- National Roads
- Regional Roads

Co. Sligo Designations (SCDP 2024-2030)

- Sligo Passage Tomb Landscape Features
- Scenic Routes
- Sensitive Rural Landscapes
- Normal Rural Landscapes
- Visually Sensitive Areas

Co. Mayo Designations (MCDP 2022-2028)

- Scenic Views

Landscape Policy Areas

- Policy Area 1
- Policy Area 3
- Policy Area 4
- Policy Area 4A

Landscape Appraisal Vulnerable Areas

- Ridgeline

Co. Sligo Settlement Hierarchy

- Regional Growth Centre
- Support Towns
- Satellite Villages
- Serviced Villages
- Unserviced Villages

Co. Mayo Settlement Hierarchy

- Tier 1
- Tier 3

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Drawing No.

Figure 13-6

Drawing Title

Landscape Policy Context Map

Project Title

Crumhach Wind Farm, Co. Sligo

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13.4.1.1 Scenic Routes and Views

For Co. Sligo, 47 no. scenic routes designated in the SCDP 2023-2030 were identified within the LVIA Study Area, and for Co. Mayo, 2 no. designated scenic routes in the MCDP 2022-2028 were identified. See scoping tables in the later Section 13.5.8 "Visual Receptors Preliminary Analysis" for details and descriptions; all scenic routes are treated as visual receptors in the assessment.

The SCDP 2023-2030 (Ch.23) defines designated scenic routes for Co. Sligo as:

> *"**Scenic Routes**: public roads passing through or close to Sensitive Rural Landscapes, or in the vicinity of Visually Vulnerable Areas, and affording unique scenic views of distinctive natural features or vast open landscapes. In addition to remote views, scenic routes have often a distinctive visual character conferred by old road boundaries, such as stone walls, established hedgerows, lines of mature trees, adjoining cottages or farmyards together with their traditional, planted enclosures etc., all of which warrant protection."*

The SCDP (Ch.23) sets out the following landscape policy objective for scenic routes:

> *"**Policy P-LCP-3**: Preserve the scenic views listed in Appendix C and the distinctive visual character of designated Scenic Routes by controlling development along such Routes and other roads, while facilitating developments that may be tied to a specific location or, in the case of individual houses, to the demonstrated needs of applicants to reside in a particular area."*

The MCDP 2022-2028 (Ch.10) designates two types of visually sensitive landscape receptors defined as follows:

> *"**Scenic Routes:** These are public roads passing through or close to areas of outstanding natural beauty, or places of interest, showcasing the unique landscape character and natural environment of Mayo, which would have a low capacity to absorb new development."*

> *"**Scenic Routes Scenic Views:** These are locations along Mayo's Scenic Routes that offer the most advantageous locations to view to and from areas of outstanding natural beauty and/or places of interests, which would have an extremely low capacity to absorb new development."*

The MCDP (Ch.10) and MCDP Vol.4 set out the following landscape policies and objectives for scenic routes:

> *"**NEO 25**: To consider applications for development, along Mayo's Scenic routes, that can demonstrate a clear need to locate in the area concerned, whilst ensuring that it:*
>
> - *Does not impinge in any significant way on the character, integrity and distinctiveness of the area;*
> - *Meets high standards in siting and design;*
> - *Contributes to and enhances local landscape character*
> - *Satisfies all other criteria, with regard to, inter alia, servicing, public safety and environmental considerations."*

> *"**3.6(b) Policy with Regard to Scenic Routes**: Scenic routes indicate public roads from which views and prospects of areas of natural beauty and interest can be enjoyed. Sightseeing visitors are more likely to be concentrated along these routes. The onus should be on the applicant when applying for permission to develop in the environs of a scenic route, to demonstrate that there will be no obstruction or degradation of the views towards visually vulnerable features nor significant alterations to the appearance or character of sensitive areas."*

13.4.1.2 Landscape Sensitivity Designations

In addition to designated scenic routes, the SCDP 2024-2030 (Ch.23) outlines three landscape designations, all of which occur within the LVIA Study Area (see Figure 13-6 Landscape Policy Context Map):

> *"**Normal Rural Landscapes**: areas with natural features (e.g. topography, vegetation) which generally have the capacity to absorb a wide range of new development forms – these are farming areas and cover most of the County. Certain areas located within normal rural landscapes may have superior visual qualities, due to their specific topography, vegetation pattern, the presence of traditional farming or residential structures. These areas may have limited capacity for development or may be able to absorb new development only if it is designed to integrate seamlessly with the existing environment.*
>
> ***Sensitive Rural Landscapes**: areas that tend to be open in character, highly visible, with intrinsic scenic qualities and a low capacity to absorb new development – e.g. Knocknarea, the Dartry Mountains, the Ox Mountains, Aughris Head, Mullaghmore Head etc.*
>
> ***Visually Vulnerable Areas**: distinctive and conspicuous natural features of significant beauty or interest, which have extremely low capacity to absorb new development – examples are the Ben Bulben plateau, mountain and hill ridges, the areas adjoining Sligo's coastline, most lakeshores etc."*

The nature of "Normal Rural" and "Sensitive Rural" landscape areas as they are mapped in the SCDP 2023-2030 shows a high number of irregular land areas, ranging from small to large in size and scattered across the entire county. As shown below in Figure 13-7, 15 out of 17 no. Proposed Turbines are located in "Sensitive Rural Landscape" and 6.3km or approximately 16% of the total length of the Proposed Grid Connection Route passes through Sensitive Rural Landscape—primarily at the eastern edge of the LVIA Study Area. Proposed Turbines T8 and T9 are sited within "Normal Rural Landscape" and the majority of the Proposed Grid Connection Route (33.5km or approximately 84%) passes through Normal Rural Landscape.

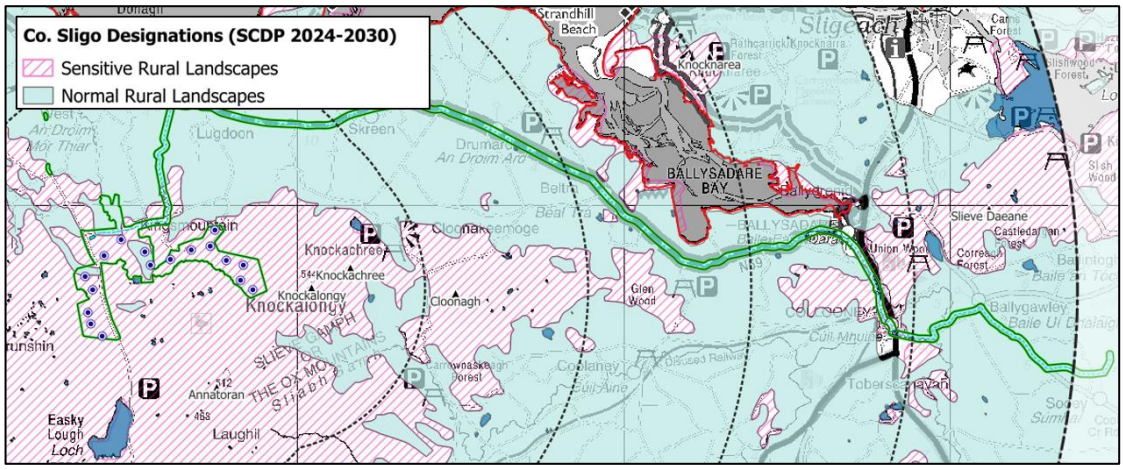


Figure 13-7: Distribution of "Normal Rural" and "Sensitive Rural" Landscapes around the Proposed Turbines and along the Proposed Grid Connection Route

The nature of "Visually Vulnerable Areas" is that they represent singular large topographic features within the county and are mapped as linear features (see Figure 13-6 Landscape Policy Context Map). For the Proposed Project, 1 no. ridgeline designated as a "Visually Vulnerable Area" traverses through the Proposed Wind Farm in the townlands of Kingsmountain and Dunowla and seven of the 17 no. Proposed Turbines are sited on or near the feature; the ridgeline is assessed as a landscape receptor in Section 13.7.3.1.4 "Landscape Effects on Visually Vulnerable Area."

Sligo Sensitivity Designations do not consider Wind Energy or Landscape Character

Importantly, there is no published Wind Energy Strategy or Landscape Character Assessment for Co. Sligo, therefore the landscape sensitivity designations provided by the SCDP 2024-2030 do not take into account the consideration of landscape sensitivity specifically to wind energy development and also do not consider landscape character assessment. Wind turbines by their nature are tall vertical objects; as such, they have the potential to visually interfere with the "character, integrity and uniformity" of vulnerable features when viewed from the surroundings. Therefore, these factors are incorporated into the assessment of landscape effects on these features in Section 13.7.3.1 "Landscape Effects during Operation."

13.4.1.3 Historic Landscape Characterisation and Landscape Conservation Areas

The SCDP 2024-2030 Section 23.3 designates "Historic Landscape Characterisation" and "Landscape Conservation Areas" as an important aspects of landscape policy, defined as:

> *"**Historic Landscape Characterisation** (HLC) is concerned with identifying and detailing the contribution of the past to the present-day landscape and broadens the understanding of landscape character. HLC is an important addition to landscape management, because it considers the historical development of the landscape and the relationship of buildings and monuments to landscape patterns. The Heritage Council has issued guidance on Historic Landscape Characterisation (HLC) in Ireland: Policy and Best Practice Guidance (2010)."*
>
> ***Landscape Conservation Areas**: Section 204 of the Planning and Development Act 2000, as amended enables a Planning Authority to designate a Landscape Conservation Area, within its functional area, in order to preserve it. During the life of this plan, the designation of Landscape Conservation Area(s), in respect of their core areas for (a) Cuil Irra Peninsula, (b) Carrowkeel and (c) Inishmurray will be explored."*

The Proposed Wind Farm is not located within any Historic Landscape Characterisation areas or Landscape Conservation Areas. All three designated Landscape Conservation Areas named in the SCDP policy (i.e. Cuil Irra Peninsula, Carrowkeel and Inishmurray) are located within the LVIA Study Area, beyond 15km of the Proposed Turbines and have no theoretical visibility and are therefore scoped out of the assessment.

13.4.1.4 Landscape Policy Areas

The MCDP 2022-2028 classifies the land are of the entire county into four broad "Principle Policy Areas" with two sub-policy areas. Of these, portions of three Policy Areas occur within the LVIA Study Area in the west and southwest of the study area:

> *"**Policy Area 1: Montaine Coastal Zone**. This area is visually distinct in County Mayo landscape terms as it incorporates, in a relatively small area, two dramatic landscape attributes being a steep and rugged shoreline and mountains rising immediately above. These elements make it a desirable setting for visitors and also particularly sensitive to inappropriate development.*
>
> ***Policy Area 3: Uplands, Moors, Heath or Bogs**. Distinctive and vast areas of the County form a single policy unit due to the similar visual characteristics of smooth topography, limited shelter vegetation, often steep slopes and prominent ridge lines, rendering this policy unit similar suitability to absorb development.*
>
> ***Policy Area 4: Drumlins and Inland Lowlands**. Undulating areas of pasture, woodland and forest make up the remainder of the County and are considered to have a generally similar*

ability to absorb development. Many of these areas are underlain by glacial drumlins and incorporate low-lying lakelands."

Of these three, the portion of Policy Area 3 within the LVIA Study Area has primarily no theoretical visibility of the Proposed Turbines owing to its steep upland terrain which limits the potential for visibility. The portions of Policy Area 1 and Policy Area 4 which fall within the LVIA Study Area boundary have primarily Full theoretical visibility.

The MCDP 2022-2028 reports the following policies for Policy Area 1:

- "***Policy 1*** *Recognise the substantial residential development existing in some locations and the further pressures for residential development in this policy area.*
- ***Policy 2*** *Facilitate appropriate tourism and amenity development in a progressive and clustered manner, where feasible, that reflects the scale, character and sensitivities of the landscape (Ref. to Housing Policy).*
- ***Policy 3*** *Encourage development that will not have a disproportionate effect on the existing character of the coastal environment in terms of location, design, and visual prominence.*
- ***Policy 4*** *Consider development that does not significantly interfere or detract from scenic coastal vistas, as identified in the Development Plan, when viewed from areas of the public realm.*
- ***Policy 5*** *Encourage development that will not interrupt or penetrate distinct linear sections of primary ridge lines and coastlines when viewed from areas of the public realm.*
- ***Policy 6*** *Preserve any areas that have not been subject to recent or prior development and have retained a dominantly undisturbed coastal character.*
- ***Policy 7*** *Consider development on steep slopes, ensuring that it will not have a disproportionate or dominating visual impact on the surrounding environment as seen from areas of the public realm.*"

The MCDP 2022-2028 reports the following policies for Policy Area 4:

- "***Policy 21.*** *Recognise that these areas are made up of a variety of working landscapes and contain the vast proportion of the Counties population within principle towns and on rural holdings. These also incorporate all of the major national primary and regional roads, and railways.*
- ***Policy 22.*** *Continue to permit development that can utilise existing infrastructure, whilst taking account of absorption opportunities provided by the landscape and prevailing vegetation.*
- ***Policy 23.*** *Encourage development that will not significantly interfere or detract from scenic Lakeland vistas, as identified in the Development Plan, when viewed from areas of the public realm.*
- ***Policy 24.*** *Encourage development that will not result in detrimental impacts (through excessive bulk, scale or inappropriate siting) on the landscape at a local or micro level as viewed from areas of the public realm.*"

13.4.1.5 Designated Vulnerable Features

The MCDP 2022-2028 Vol.4 designates a number of "Vulnerable Features" including coastlines, banks of rivers, shorelines of all lakes, skylines of upland areas and all headlands and promontories. The Landscape Baseline determined that several small unnamed ridgelines, minor rivers and water bodies occur within the LVIA Study Area and none are within 10km of the Proposed Turbines; therefore, there is no likelihood for potential landscape effects and the features have been scoped out.

13.4.1.6 Wind Energy Zoning

Co. Sligo – No Wind Energy Strategy. At the time of writing this report, there is no published wind energy strategy (WES) or renewable energy strategy for Co. Sligo, where the Proposed Project is located; hence, no wind energy zoning is applicable to the Proposed Wind Farm or the Proposed Grid Connection Route. Figure 13-8 below is a map of the LVIA Study Area indicating that there is no WES for Co. Sligo available. Regarding the publication of a renewable energy strategy for Co. Sligo in the future, the SCDP Section 31 "Renewable Energy" states the following:

> *"At the time of writing (2024), the final Wind Energy Development Guidelines had not yet been issued under Section 28 of the Planning and Development Act 2000 (as amended)...Sligo County Council will prepare a Renewable Energy Strategy in accordance with the forthcoming Regional Renewable Electricity Strategy and the revised Methodology for Local Authority Renewable Energy Strategies (a measure contained in Section 12.3.1 of CAP23), when published. In the interim period, the Planning Authority will continue to assess all wind energy development proposal using the criteria set out in the DECLG's Wind Energy Guidelines (2006)."*

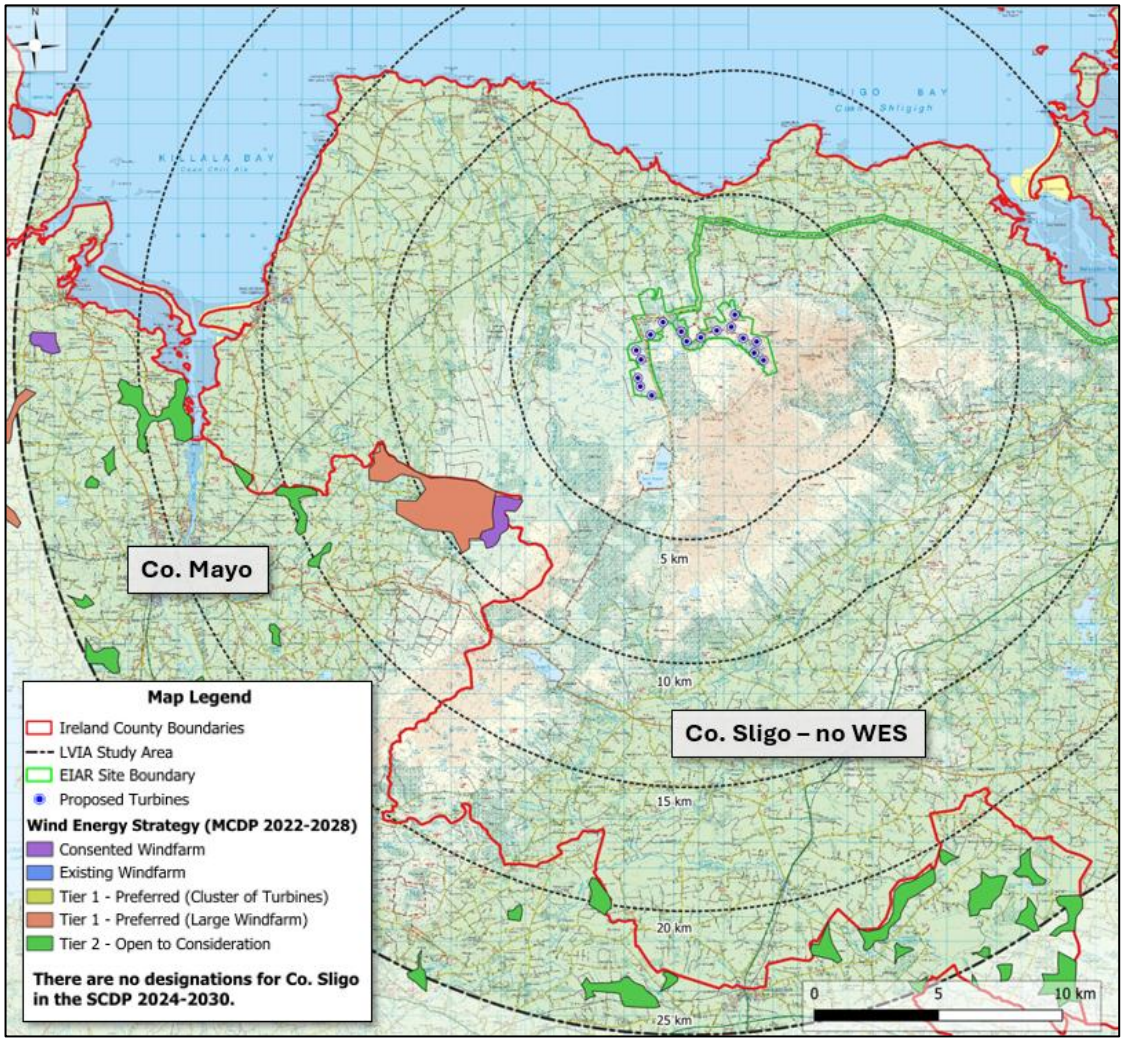


Figure 13-8: Wind energy zoning in Co. Mayo of landscape areas located greater than 6km from the Proposed Turbines

Co. Mayo Renewable Energy Strategy. At the time of writing this report, a new WES is under preparation; however, has not yet been published. Therefore, the latest information on wind energy strategy for Co. Mayo is the MCDP 2022-2028 Mayo Renewable Energy Strategy, Map 1 Wind Energy, which is reproduced in Figure 13-8 above. The map indicates wind energy zoning land areas which fall

within the LVIA Study Area, indicating that small areas of "Tier 1 Preferred" and "Tier 2 Open for Consideration" occur along the county border with Sligo, comprising the landscape areas closest in proximity to the Proposed Turbines (approx. 6.6km). The LVIA considers these zoning classifications in the assessment of viewpoints representing the landscape of Co. Mayo in the southwest of the LVIA Study Area.

13.4.2 Designated Landscape Character Areas (LCAs)

13.4.2.1 LCAs of the Study Area and Theoretical Visibility of the Proposed Turbines

Co. Mayo LCAs. Designated LCAs within Co. Mayo that fall within the 15km LCA Study Area are identified below; note that the names use the term "Landscape Character Unit" or LCU. Figure 13-9 below maps all LCAs within the 15km LCA Study Area and shows the theoretical visibility of the Proposed Turbines from within the LCAs. 2 no. designated LCAs in Co. Mayo occur in the wider setting of the LCA Study Area, each located greater than 5km from the Proposed Turbines at its closest point:

- M-LCU-H East Mayo Uplands: "*This area is primarily made up of rugged hill country, which provides for low quality pastural land uses. It progresses from low-lying lakeland drumlins around the shores of Lough Conn and Lough Cullin, to rugged hill country where it forms the foothills at the south western end of the Ox Mountains.*"
- M-LCU-G North Mayo Drumlins: "*This area of drumlin topography contains mild low lying lakeland drumlins at the southern end merging into similar coastal topography in the north east surrounding Killala Bay. More severe, steeper drumlins occur around the foothills of the mountains to the north-west and the Ox Mountains to the east. The flood plain of the River Moy is also incorporated within this area.*"

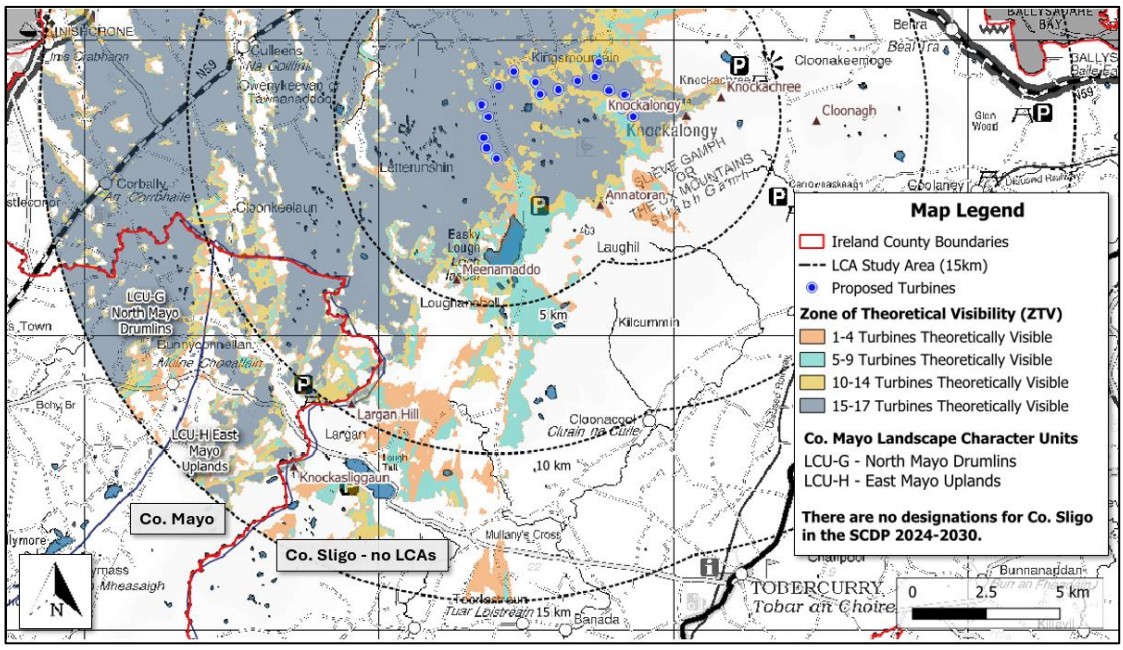


Figure 13-9: Designated LCAs in Co. Mayo within the 15km LCA Study Area

Co. Sligo LCAs. At the time of writing this LVIA, no Landscape Character Assessment is currently published as part of the SDCP 2024-2030; therefore, this LVIA does not assess designated LCAs for Co. Sligo. The SCDP Vol.3 Section 23.2.1 Landscape Characterisation Map (p.2) states the following

objective of the Sligo County Council to conduct a Regional-level Landscape Character Assessment in the future:

> *"In the interest of a consistent approach to landscape characterisation and amenity protection measures across the Northern and Western Region, the RSES includes a relevant objective, RPO 5.2, which states that the Regional Assembly will prepare a Regional Landscape Character Assessment in order to promote improved landscape management and designation. The existing landscape characterisation and associated map for County Sligo will be reviewed in due course, to ensure compliance with the national and regional assessments, and with any new ministerial guidance."*

13.4.2.2 LCAs Preliminary Analysis

Table 13-2 Designated LCAs Scoped in for Assessment in the LVIA

LCA No.	LCA Name	Rationale for Scoping In
M-LCU-G	North Mayo Drumlins	Full theoretical visibility of the Proposed Turbines throughout most of the land area of the LCA within the study area, which features a local road network north of Bunnyconnellan.

The above designated LCA was scoped in for the assessment of landscape character on designated LCAs, regarding the 15km LCA Study Area. The assessment table is presented later in this chapter (Section 13.7.3.1.6, Table 13-11) and contains the detailed assessment of M-LCU-G North Mayo Drumlins, reporting the following:

- Relevant landscape key characteristics and distinctive features,
- The capacity of the LCA to accommodate wind energy development,
- The sensitivity of the LCA to wind energy development,
- The visibility of the Proposed Project from within the LCA and any viewpoints located within the LCA boundary if relevant,
- The magnitude of change and significance of landscape effects,
- Any mitigating factors which influenced the residual landscape effect rating.

The following table below gives the rationale for scoping the remaining LCA out of assessment following the Landscape Baseline exercise.

Table 13-3 Rationale for Designated LCAs Scoped Out

LCA No.	LCA Name	Rationale for Scoping Out of Assessment
M-LCU-H	East Mayo Uplands	The portion of LCA-H within the LCA Study Area is greater than 5km from the Proposed Wind Farm at its closest point and primarily comprises uninhabited marginal upland bogs in the foothills of the Ox Mountains (west of Largan Hill) with very few roads and mixed theoretical visibility of the Proposed Turbines throughout.

13.4.3 Landscape Character of the Proposed Wind Farm

Topography

The local topography across the Proposed Wind Farm slopes generally in a north-westerly direction, down away from the foothills of the Ox Mountains, as shown in Figure 13-10 below. The elevation of the site itself ranges from approximately 107m to 411m AOD, although it can be seen from Figure 13-10 that there is substantially higher ground located proximate to the site to the southeast. The mountainous nature of the topography includes rugged terrain forming relatively small spatial enclosures. One such enclosure can be seen in the figure at the east of the Proposed Wind Farm, surrounding Proposed Turbines T17, T16, T15 and T14.

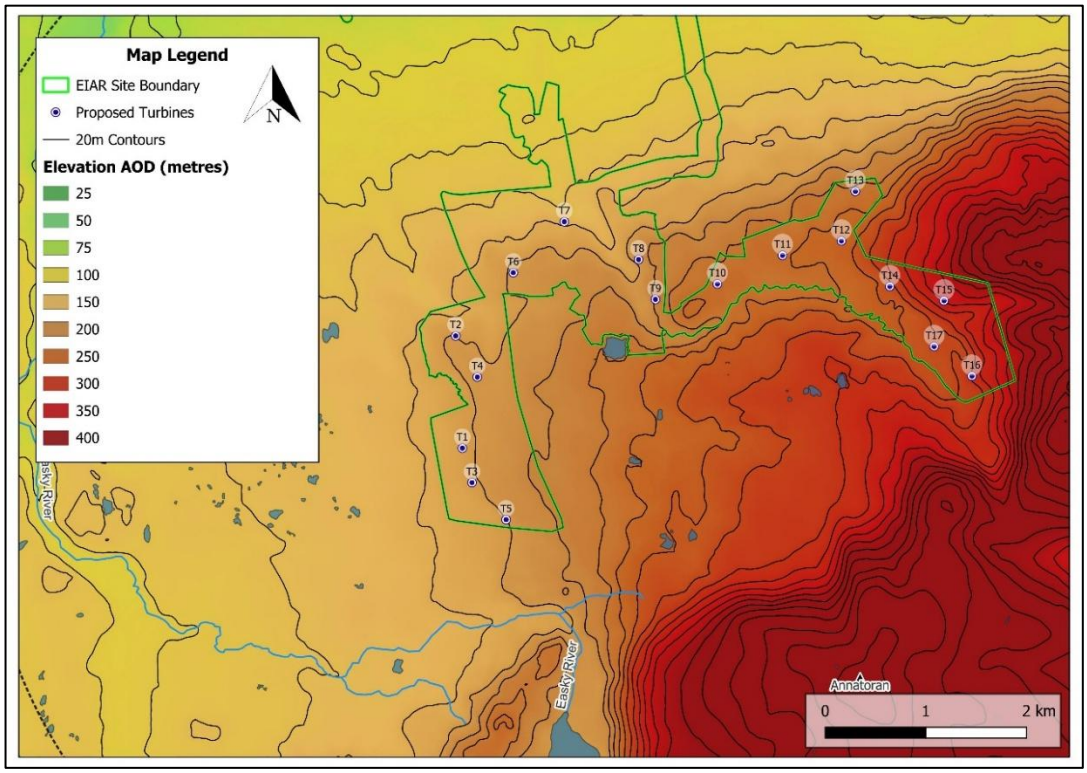


Figure 13-10 Topography map of the Proposed Wind Farm

Landcover and Land Use



Figure 13-11 Aerial view showing landcover of the Proposed Wind Farm

The Proposed Wind Farm is part of a remote landscape and wind energy is an established land-use within the site. The Proposed Wind Farm encompasses the Existing Wind Farm and will include the removal of the Existing Wind Farm turbines, and their replacement with the Proposed Turbines on the Existing Wind Farm site and adjoining lands. Current landcover within the Proposed Wind Farm is mainly cutover peat bog, coniferous forestry plantation and agricultural grass fields with coniferous forest to the northwest, east and south of the site; see Figure 13-11 above. The overall landscape is a sparsely settled marginal upland landscape with existing wind energy. Plate 13-4 through Plate 13-7 below show examples of the forestry onsite and demonstrate the upland nature of the landscape with existing wind energy infrastructure.



Plate 13-4 Proposed Wind Farm showing a mix of mountain moorland, local roads and forestry, looking south towards the Ox Mountains range



Plate 13-5 Proposed Wind Farm showing a mix of marginal uplands scrub, forestry stands, pastoral agriculture and established wind energy infrastructure



Plate 13-6 Western parcel of the Proposed Wind Farm with cutover peat



Plate 13-7 Proposed Wind Farm showing a mix of marginal uplands and forestry tracts

Onsite 110kV Substation

The proposed on-site 110kV substation sits within the boundary of the Proposed Wind Farm, approximately 100m from the local road network in the northwestern corner of the Proposed Wind Farm between Proposed Turbines T6 and T7, see Figure 13-12 below. An existing water treatment plant, which is not part of the Proposed Project, is located in the northwest corner of the boundary, adjacent to the proposed substation and is visible from the road network.

The proposed substation is to be set within a tract of commercial forestry and surrounded on all sides by mature trees. The landscape character of this part of the Proposed Wind farm site is heavily modified by forestry activities; see discussions on landscape and visual effects with regard to the proposed substation in Section 13.7.3.2.8 "Visual Effects of the Onsite 110kV Substation."

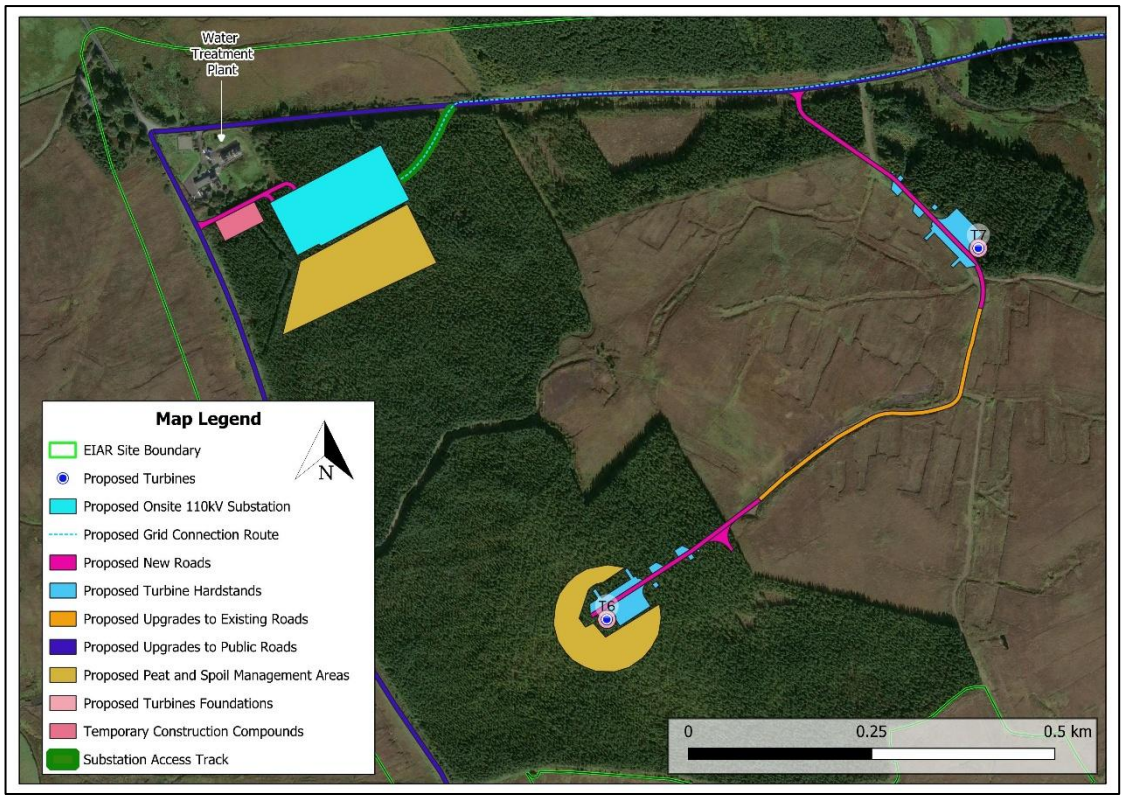


Figure 13-12: Aerial map of the location of the proposed onsite 110kV substation

13.4.4 Landscape Sensitivity of the Proposed Wind Farm

The landscape sensitivity of the Proposed Wind Farm is determined by combining assessments of landscape value and susceptibility to change. Landscape value considers designations, landscape quality, scenic qualities, and other indicators of how the landscape is valued by society. Susceptibility considers the ability of the landscape to accommodate the proposed type of development without undue consequences for its character.

Table 13-4 below assesses indicators of landscape value for the Proposed Wind Farm. The susceptibility to change and overall sensitivity rating of the site are then determined based on three factors: the assessment of value, the existing landscape character, and the nature of the Proposed Project.

Table 13-4: Indicators of Landscape Value and Susceptibility to Change for the Wind Farm Site

Indicator	Evaluation
Landscape Designations	2 no. scenic routes designated in SCDP 2023-2030 pass through the Proposed Wind Farm: SR-58 running north-south and SR-70 running east-west. The Proposed Wind Farm comprises areas of "Sensitive Rural" and "Normal Rural" landscape as designated in the SCDP 2023-2030. 2 no. out of 17 no. Proposed Turbines are located within "Normal Rural" landscape, while the remaining Proposed Turbines are located within "Sensitive Rural" landscape.
Landscape Elements Quality / Condition	The Proposed Wind Farm comprises existing wind farm infrastructure and landscape areas of cutover peat bog, commercial forestry and agricultural grassland. These elements are evident of a landscape subject to human alteration and modification. The condition of the landscape areas within the Proposed Wind Farm is degraded in several locations due to turf/peat cutting, forestry and agriculture.
Scenic / Aesthetic Qualities	The site has rural aesthetic qualities given the mountainous upland setting. At the same time, the Existing Wind Farm infrastructure is located throughout the site and immediate surrounding area and offsets the rural nature. The Proposed Wind Farm is located on the northwestern foothills of Ox Mountains and features long-ranging views to the north and west overlooking coastal lowlands.
Rarity or Conservation Interests	The Ox Mountains Bog Special Area of Conservation or SAC is located within the Proposed Wind Farm, primarily valued for its peat habitat, and it was found in this EIAR that there will be no adverse effects on the integrity of the European Site; a comprehensive assessment of conservation interests of the Proposed Project is provided in the EIAR Chapter 6: Biodiversity.
Wildness / Naturalness	The Proposed Wind Farm is a mixture of landscape containing Existing Wind Farm infrastructure and peat bog, bordered by agricultural land and commercial forestry which lessens the degree of wildness.
Recreational Value	The Proposed Wind Farm comprises parcels of privately owned land which are not used for public recreational activities; however, a small portion (approximately 7.8km length) of the Sligo Way waymarked walking trail passes through the western and northern parts of the site and follows portions of the public road network, aligning with designated scenic routes SR-58 and SR-70.
Cultural Meaning / Associations	No sites of popular cultural meaning or association are within the Proposed Wind Farm. One historical site of local importance, Cooper's Lodge, is situated in the centre of the Proposed Wind Farm; a brief overview of the predicted landscape and visual effects is reported in Section 13.7.3.2.4 and a full assessment of potential cultural heritage impacts is reported in Chapter 14: Cultural Heritage. According to Chapter 14, no "Significant" effects on archaeological, architectural or cultural heritage resources are predicted within the site for the Operational Phase.

In consideration of the factors detailed in the table above, the landscape value of the Proposed Wind Farm is deemed medium, for the following reasons. The site comprises a sparsely populated modified working landscape of cutover peat bog and commercial forestry and already contains infrastructure of the Existing Wind Farm. The landscape has no unique or distinctive qualities of county, regional or national renown; however, two designated scenic routes pass through the site adjacent to cutover peat, commercial forestry stands and agricultural fields. The site comprises areas of "Sensitive Rural

Landscape" and "Normal Rural Landscape" as designated by the SCDP 2023-2030, and these designations do not consider sensitivity to wind energy development or landscape character assessment. There is recreational value associated with the Sligo Way waymarked walking trail which passes through the Proposed Wind Farm.

Working landscapes such as cutover peatland, forestry and agricultural land are commonly considered as generally unpopulated or sparsely populated landscape types which can effectively accommodate wind energy development. Considering this, and the nature of existing wind energy development at the site, the susceptibility to change of the Proposed Wind Farm is considered low. On balance, the overall landscape sensitivity of the Proposed Wind Farm is deemed "Low."

13.4.5 Guidance for Siting and Design in the Wind Energy Development Guidelines

According to definitions of landscape character types in the Guidelines (DoEHLG, 2006) and the Draft Guidelines (DoHPLG, 2019), the landscape type of "Mountain Moorland" is best suited to describe the Proposed Wind Farm.

Key characteristics (the Guidelines (DoEHLG, 2006), p.47; the Draft Guidelines (DoHPLG, 2019), p.101):

- *"**Mountain Moorland Landscape**: Peaked, ridged or rolling mountains and upland with steep slopes or gently formed valleys;*
- *Generally unenclosed;*
- *Landcover comprising of blanket bog, a mottling of heather, wild grasses and some rush in wet flushes;*
- *A landscape type of relative remoteness and often comprising pristine, unspoilt and remote landscapes."*

The siting and design guidance for wind energy developments within Mountain Moorland Landscapes are recommended as follows in the WEDGs Landscape (the Guidelines (DoEHLG, 2006), p.59; the Draft Guidelines (DoHPLG, 2019), p.110):

- *"**Location:** It may be acceptable to locate wind energy developments on ridges and peaks. They may also be appropriate, in certain instances, in a saddle between two peaks where they will be partially contained or "framed." A third acceptable location is lower down on sweeping mountainsides.*
- ***Spatial Extent:** Given the typical extensive areas of continuous unenclosed ground, larger wind energy developments can generally be accommodated because they correspond in terms of scale. However, the spatial extent of a wind energy development would need to be reduced where a suggestion of smaller scale is provided by nearby landscape features.*
- ***Spacing:** All spacing options are usually acceptable. Where a wind energy development is clearly visible on a crest or ridge there is considerable scope to vary the rhythm, though on simple ridges, regular spacing may be more appropriate. On sweeping and continuously even areas of mountain moorland or upland plateaux regular spacing may be most desirable.*
- ***Layout:** All layout options are usually acceptable. However, the best solutions would either be a random layout, and clustered where located on hills and ridges, or a grid layout on sweeping and continuously even areas of moorland or plateaux. Where a wind energy development is close to a linear element, such as a river, road or long escarpment, a corresponding linear layout or staggered line might be most desirable.*
- ***Height:** There would generally be no height restrictions on mountain moorlands as the scale of landscape is so great. However, shorter turbines may be more appropriate where they are located on small peaks and outcrops in order to maintain*

an appropriate scale. Profile, whether even or uneven, is dependent on topography: the more rugged and undulating (e.g., knolls and crags) the more uneven it will be. The profile of the wind energy development should not necessarily run in parallel to that of the topography.

- ***Cumulative Effect**: The open expanse of such landscapes can absorb a number of wind energy developments, depending on their proximity. The cumulative impact will also depend on the actual visual complexity of landform, whether steeply rolling, undulating or gently sweeping. The more varied and undulating an area is topographically, the greater its ability to absorb and screen wind energy developments. The aesthetic effect of wind energy developments in these landscapes is acceptable where each one is discrete, standing in relative isolation."*

Overall, the Proposed Turbines are sited at lower elevations of the steep mountainside and along lower elevation ridgelines within an appropriate spatial extent for the broad landscape and with regular staggered spacing in a mix of random and clustered layout of slightly uneven height profile that follows the rugged topography, thereby aligning with best practice siting and design for wind energy developments in Mountain Moorland Landscapes.

In terms of location, the siting of some of the Proposed Turbines at lower elevations relative to the sweeping mountainside provides visual containment, thereby reducing visual exposure of certain turbines from receptors in the landscape. A few turbines are sited along an elevated ridgeline, staggered to either side. When viewed from the west and north, where they are most visible, the Proposed Turbines are framed by the surrounding topography and peaks to the east and south. In terms of spatial extent, the wider landscape area within which the Proposed Turbines are located is a large-scale, remote landscape, capable of effectively absorbing a wind farm of this scale and spatial extent. In terms of spacing the Proposed Turbines are appropriately spaced in a regular staggered arrangement across the topography.

As the Proposed Turbines are located at lower elevations than the adjacent sweeping mountainside, regular spacing is appropriate in this landscape character type. In terms of layout, the Proposed Turbines are seen as a mix of random and clustered. In terms of height the Proposed Turbines show a slightly uneven height profile that follows the rugged topography. In terms of cumulative effect, the Proposed Project is considered with respect to its moderate proximity to multiple existing, permitted and proposed wind farms among the Ox Mountains range landscape; see full details of cumulative wind farms in the LVIA Study Area in the later Section 13.6 "Cumulative Context."

13.4.6 Wider Landscape Setting

13.4.6.1 Landscape Character of the LVIA Study Area

In the wider LVIA Study Area, the landscape character is primarily defined by upland mountainous terrain of the Ox Mountains orientated NE-SW, with broad sweeping plains of pastural land to the north and west leading down to the coast and vast areas of uplands, heath and moor as well as drumlins and lowland plains to the southwest. To the southeast are lowland plains enclosed by the Ox Mountains.

The key landscape characteristics to the north and west include unobstructed scenic views from the uplands and foothills looking towards the coastline. The key landscape characteristics of the southwest portion of the LVIA Study Area include long-ranging scenic views across the relatively flat and uninhabited uplands, heath and moor.

The key landscape characteristics of the valley lowlands to the southeast include flat and gently undulating agricultural plains. The ZTV mapping shows virtually no theoretical visibility of the Proposed Turbines from vast areas of the southeast, owing to visual screening by the Ox Mountains.

Potential effects on these the key landscape characteristics listed here are reported in Section 13.7 "Likely Significant Landscape and Visual Effects."

13.4.6.2 Sligo Passage Tomb Landscape: Cultural/Archaeological Landscape

A portion of the Sligo Passage Tomb Landscape, the nationally renowned historical landscape with very high historical, cultural and archaeological value, is located in the northeastern portion of the LVIA Study Area (see Figure 13-13 below). The Sligo Passage Tomb Landscape is included on Ireland's tentative list as a potential UNESCO Heritage Site.

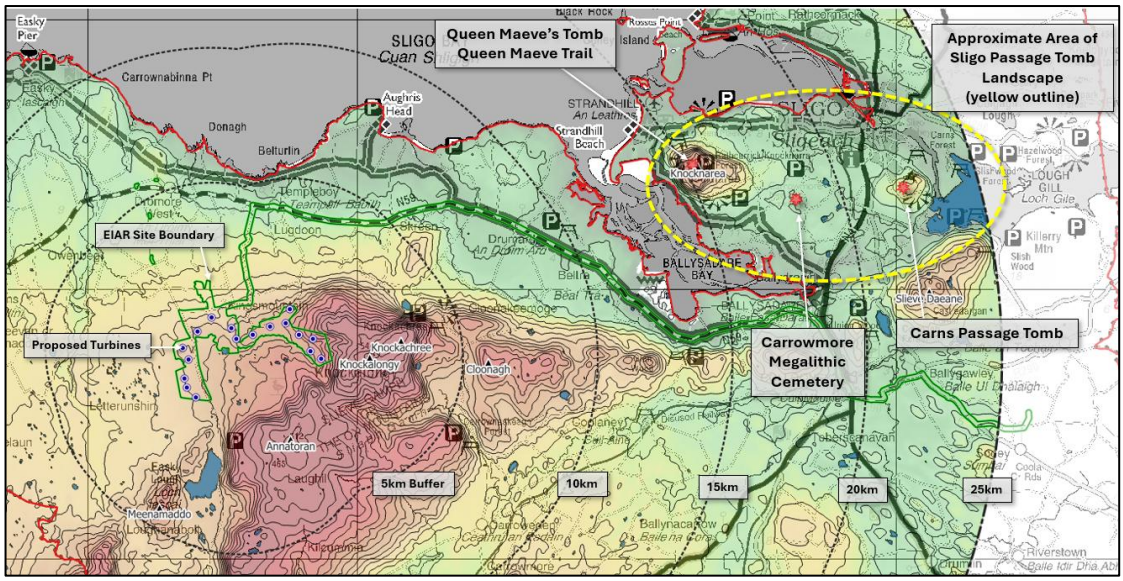


Figure 13-13: Area of Sligo Passage Tomb Landscape within the LVIA Study Area, topography follows the legend of Figure 13-10

This portion of the landscape within the study area contains 4 no. key receptors:

- Queen Maeve's Tomb, located **15.6km** from the nearest proposed turbine.
- Queen Maeve Trail, with its highest point of greatest visibility located **15.6km** from the nearest Proposed Turbine.
- Carrowmore Megalithic Cemetery, located **18.6km** from the nearest Proposed Turbine.
- Carns Passage Tomb, located **22.7km** from the nearest Proposed Turbine.

Of these, only Queen Maeve's Tomb and portions of Queen Maeve Trail, located on Knocknarea peak, have theoretical visibility of the Proposed Turbines according to ZTV mapping (see Figure 13-14 "Visual Baseline Map"). A photomontage produced from imagery captured within the area of theoretical visibility at the summit of the passage tomb has been developed in order to determine actual visibility (VP02).

From an LVIA perspective, the historic landscape amenity of the Sligo Passage Tomb Landscape (and therefore also Knocknarea/Queen Maeve's Tomb) includes its value as a specific destination for visitors to come and experience views of the landscape from Knocknarea and the historic site of Queen Maeve's Tomb, as well as views from the wider landscape setting looking towards Knocknarea and Queen Maeve's Tomb.

The Sligo Passage Tomb Landscape is a larger landscape area encompassing Knocknarea as well as multiple other significant sites such as Carrowkeel. The following context is provided to provide clarity on the status of a site on the tentative list of potential UNESCO Heritage Sites and the appropriate and proportionate level of impact assessment which can or cannot be conducted for sites on the UNESCO

tentative list. The following documents provide guidance for the impact assessment of wind energy developments on UNESCO world heritage (collectively, UNESCO guidance):

- *Guidance and Toolkit for Impact Assessments in a World Heritage Context* (UNESCO, 2022), hereafter referred to as "UNESCO Toolkit Guidance."
- *Guidance for Wind Energy Projects in a World Heritage Context* (UNESCO, 2022), hereafter referred to as "UNESCO Wind Guidance."

The UNESCO Toolkit Guidance is specifically designed to assess impacts on properties that are already inscribed on the UNESCO World Heritage List or those with formally adopted "Statements of Outstanding Universal Value." World Heritage properties are inscribed on the World Heritage List for their exceptional cultural and/or natural values for all of humanity. This importance is expressed through a measure called the Outstanding Universal Value (OUV) of a site. The OUV is endorsed by the World Heritage Committee in the Statements of OUV, usually at the time of inscription. The OUV is established at the time of inscription and can only be changed by a new nomination process with approval by the World Heritage Committee.

The Sligo Passage Tomb Landscape is currently proposed for nomination for UNESCO World Heritage status. A nominated tentative property, such as Knocknarea Mountain within the Sligo Passage Tomb Landscape, does not have an officially recognised OUV by the World Heritage Committee. The UNESCO guidance has been developed to assess potential impacts on properties that:

- Have been formally inscribed on the World Heritage List,
- Have an adopted Statement of OUV,
- Are already subject to the requirements of the World Heritage Convention.

The UNESCO guidance for impact assessment comprises an approach tailored to protect sites whose OUV is recognised and binding. In contrast, tentative sites are not yet inscribed, meaning they do not have formal protection under the Operational Guidelines for the Implementation of the World Heritage Convention. Tentative sites do not have a formally adopted OUV, meaning there is no agreed framework against which to assess the impact of a development. The tentative list status means a country has proposed a site for potential future nomination, but it has no legal or procedural standing under the World Heritage Convention. Assessing the Proposed Project in accordance with the UNESCO guidance is not applicable in the case of the Sligo Passage Tomb Landscape; however, the assessment process can be informed by the guidelines, along with the UNESCO Wind Guidance.

Currently, there is no definitive statement of what constitutes OUV for the Sligo Passage Tomb Landscape; therefore, complete alignment with the UNESCO guidance is not currently possible. However, there are suggested frameworks and technical tools within the guidance which have been considered and adopted in the assessments of this chapter to ensure a robust and proportionate assessment in the absence any defined OUV.

The UNESCO Toolkit Guidance quotes EIA as being the appropriate mechanism for conducting impact assessments. The key distinction between the UNESCO Toolkit Guidance and EIA is related to the requirement to assess impacts on OUV of a site. As part of evaluating potential impacts on World Heritage Sites, it is important to define the type of change that will occur and if this change is reversible, temporary or permanent. In the context of the Proposed Project, it is only the Proposed Turbines which have the potential to impact the vulnerable features in Sligo Passage Tomb Landscape (Knocknarea and Queen Maeve's Tomb, located approx. 15.6km east from the Proposed Turbines). The effects are therefore reversible as the Proposed Turbines will be decommissioned and removed at the end of the proposed 35-year planning permission. While there is a possibility that the Proposed Turbines could be replaced at the end of the planning period, this is currently uncertain as it would be subject to a new planning application and assessment within a future receiving environment.

"Note 5" of the UNESCO Wind Guidance relates to Visual Impact Assessment. The methodology, tools and process for visual impact assessment in Note 5 are strongly aligned with the methodology of

this LVIA which follows best practice guidelines for the LVIA of wind energy developments in Ireland. The main difference arises in the concept of assessing OUV, which is not possible in this case. Landscape and visual effects, including cumulative effects, on the Sligo Passage Tomb Landscape are reported in this LVIA in the following sections:

- 13.7.3.2.7 "Visual Effects on Sligo Passage Tomb Landscape,"
- 13.7.4.1.2 Sub-heading – "Cumulative Effects on Sligo Passage Tomb Landscape."

In Section 13.7.3.2.7, the potential cumulative visual effects are discussed in detail. It was determined that there will be no cumulative effects on the Sligo Passage Tomb Landscape and the findings are discussed in Section 13.7.4.1.2.

13.4.7 Landscape Receptors Preliminary Analysis

13.4.7.1 Landscape Receptors Scoped In

The following receptors identified in the LVIA Study Area were scoped in for assessment in the LVIA and are mapped below in Figure 13-14 "Visual Baseline Map"; see the full detailed methodology in *Appendix 13-1: LVIA Methodology* for the analysis of scoping receptors in and out of assessment.

Table 13-5: Landscape Receptors Scoped in for Assessment in the LVIA

Receptor	Description	Theoretical Visibility	On-site Visibility Appraisal	Scoped In
Visually Vulnerable Area	Co. Sligo Visually Vulnerable Area–linear ridgeline located west of Knockachree and Knockalongy peaks.	Full.	The Proposed Turbines are sited along the ridgeline itself and in close proximity to the ridgeline.	Yes.
Landscape Policy Area	Co. Mayo Policy Area 4: Drumlins and Inland Lowlands.	Full.	Potential visibility from within the policy area.	Yes.

13.4.7.2 Landscape Receptors Scoped Out

In some cases, specific receptors are scoped out where there is no potential for significant visual effects to occur on account of combination of factors such as distance, visual screening, direction of views and the nature and sensitivity of the receptors at a particular location.

Table 13-6: Landscape Receptors Scoped Out of the Assessment

Receptor	Description	Rationale for Scoping Out
Designated Vulnerable Areas	Co. Mayo water features beyond 5km: - Oweninny River, - Muingnabo River, - Lough Conn, - Keerglen River,	As these water features are greater than 5km from the Proposed Turbines, there is little potential for significant landscape effects on the "*character, integrity or uniformity*" of these features.

Receptor	Description	Rationale for Scoping Out
	› Heathfield River, › Glenulra River, › Glencullen River, › Glenamoy River, › Deel River, › Cloonmore River, › Carrowmore Lough, › Belderg River, › Ballinglen River.	
Designated Vulnerable Features	Within Co. Mayo, several small unnamed ridgelines, minor rivers and water bodies occur within the LVIA Study Area.	None are within 10km of the Proposed Turbines, therefore there is no likelihood for potentially significant landscape effects.
Landscape Policy Areas	Co. Mayo Policy Area 3: Uplands, Moors, Heath or Bogs.	The portion of Policy Area 3 within the LVIA Study Area has primarily no theoretical visibility of the Proposed Turbines, this is owing to its steep, undulating upland terrain which limits the potential for visibility.
	Co. Mayo Policy Area 1: Montaine Coastal Zone.	The portion of Policy Area 1 with theoretical visibility is located >20km from the Proposed Turbines and is not likely to experience significant effects on the key sensitivities of the landscape area, identified in the SCDP 2024-2030 as the coastline features and the mountainous terrain above the coastline.

13.5 Visual Baseline

Figure 13-14 below maps all identified visual receptors for the LVIA Study Area and overlays the ZTV Map to indicate theoretical visibility at the receptor locations and maps the 15 no. photomontage viewpoint (VP01-VP15) locations selected for assessment.

The identified visual receptors include designated scenic routes and protected views as well as Sligo Passage Tomb Landscape features as identified previously in Section 13.4 "Landscape Baseline." Section 13.5.1 through Section 13.5.7 below report the relevant types of visual receptors, and Section 13.5.8 below provides the preliminary analysis and scoping of visual receptors, with rationale. The visual receptors are divided into:

- Designated Scenic Routes and Views,
- Recreational Trails,
- Popular Recreational, Cultural Heritage and Tourist Destinations,
- OSi Viewing Areas,
- Settlements,
- Primary Transport Routes,
- Sligo Passage Tomb Landscape Features.

Finally, Section 13.5.9 below presents the detailed information of photomontage viewpoints VP01-VP15 selected for assessment in the LVIA in *Appendix 13-2: Viewpoint Assessment Tables*. Viewpoint selection was informed by the preliminary analyses of landscape receptors (from Section 13.4.7 above), the preliminary analysis of visual receptors (Section 13.5.8 below), and the analysis of new areas with potential visibility of the Proposed Turbines using the Comparative ZTV Map (from Section 13.3.3.2 above).

Map Legend

- Ireland County Boundaries
- LVIA Study Area (25km)
- Proposed Turbines
- Photomontage Viewpoints

Zone of Theoretical Visibility (ZTV)

- 1-4 Turbines Theoretically Visible
- 5-9 Turbines Theoretically Visible
- 10-14 Turbines Theoretically Visible
- 15-17 Turbines Theoretically Visible

Co. Sligo Designations (SCDP 2024-2030)

- Sligo Passage Tomb Landscape Features
- Scenic Routes
- Sligo Way Waymarked Walking Trail

Co. Mayo Designations (MCDP 2022-2028)

- Scenic Views

Non-Designated Visual Receptors

- National Roads
- Regional Roads
- The Wild Atlantic Way - Tourist Route
- SportIreland Trails
- OSi Viewing Areas
- Sligo Tourist Attractions

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Drawing No.

Figure 13-14

Drawing Title

Visual Baseline Map

Project Title

Crumhach Wind Farm, Co. Sligo

Scale	Project No.	Date	Drawn By	Checked By
1:190,000	230841	2026.06.11	RS	MW

13.5.1 Designated Scenic Routes and Views

A total of 50 no. designated scenic routes and views in Co. Sligo and Co. Mayo are located within the LVIA Study Area; of these, 2 no. scenic routes designated in the SCDP 2024-2030 pass directly through the Proposed Wind Farm: SR-58 running north-south and SR-70 running east-west. See the later Section 13.5.8 "Visual Receptors Preliminary Analysis" for scoping of scenic routes.

13.5.2 Recreational Trails

20 no. recreational trails were identified in the LVIA Study Area; these are detailed below in Section 13.5.8. Of these, 2 no. way-marked walking trails, Sligo Way and Lough Easky Loop, pass within 5km of the Proposed Wind Farm and have mixed to Full theoretical visibility of the Proposed Turbines.

13.5.3 Popular Recreational, Cultural Heritage and Tourist Destinations

12 no. recreational, cultural heritage and tourist destinations were identified in the LVIA Study Area; these are detailed below in Section 13.5.8. Of these, 1 no. tourist drive, the Wild Atlantic Way, passes within 5km of the Proposed Wind Farm.

13.5.4 OSi Viewing Areas

6 no. OSi Viewing Areas were identified in the LVIA Study Area and none are scoped in for assessment owing to there being little to no theoretical visibility of the Proposed Turbines; see below in Section 13.5.8.

13.5.5 Settlements

According to the settlement hierarchies reported in local policy, only one village, Dromore West, is within 5km of the Proposed Turbines. No Support Towns or Regional Growth Towns are within 10km of the Proposed Turbines; see below in Section 13.5.8.

13.5.6 Primary Transport Routes

Onsite visibility appraisal determined that most visibility of the Proposed Turbines will occur within 3-5km of the Proposed Wind Farm from the local road network surrounding the Proposed Turbines to the northwest, and there is also potential for visibility to occur for users of the N59 National Road particularly where it passes within 5km of the Proposed Wind Farm.

13.5.7 Sligo Passage Tomb Landscape Features

A portion of the nationally renowned Sligo Passage Tomb Landscape is located within the LVIA Study Area and some of the area at its western end shows partial theoretical visibility according to ZTV mapping. The Sligo Passage Tomb Landscape is included on Ireland's tentative list as a potential UNESCO Heritage Site; see policy context above in Section 13.4.6.2.

Two primary features of the Sligo Passage Tomb Landscape were identified in the baseline exercises to be scoped in for assessment in the LVIA:

- Queen Maeve's Tomb, located on Knocknarea Mountain.

- Queen Maeve Trail – its highest point with the greatest visibility is located at the site of Queen Maeve's Tomb.

Two other features within the Sligo Passage Tomb Landscape (Carrowmore Megalithic Cemetery and Carns Passage Tomb) are located greater than 15km from the Proposed Turbines and do not have theoretical visibility according to ZTV mapping. The baseline details and scoping of all Sligo Passage Tomb Landscape features are shown in the tables in Section 13.5.8. Views from Knocknarea and Queen Maeve's Tomb looking in the direction of the Proposed Turbines, as well as representative views from the highest point of Queen Maeve Trial, are assessed in this LVIA.

Owing to the position of the Proposed Turbines on the western aspect of the Ox Mountains foothills and the position of Knocknarea approximately 15km to the east of the Proposed Wind Farm on the other side of the Ox Mountains (to the east), views from the wider landscape setting in the east of the Ox Mountains looking up towards Knocknarea and Queen Maeve's Tomb will not be impacted by the Proposed Turbines; see the detailed visual impact assessments in Section 13.7.3.2 "Visual Effects during Operation."

13.5.8 Visual Receptors Preliminary Analysis

13.5.8.1 Visual Receptors Scoped In

The following visual receptors identified in the LVIA Study Area were scoped in for assessment in the LVIA and are mapped below in Figure 13-14 "Visual Baseline Map"; see the full detailed methodology in *Appendix 13-1: LVIA Methodology* for the analysis of scoping receptors in and out of assessment.

Table 13-7 Visual Receptors Scoped in for Assessment in the LVIA

Receptor	Description	Theoretical Visibility	On-site Visibility Appraisal	Scoped In
0 to 5km				
Designated Scenic Routes	S-SR-58: Dromore West to Mullany's Cross (L-2702, L-4701 & L-4702). Views of Lough Easkey, Ox.	Full and mixed.	Passes through the site. Visibility along the route.	Yes.
	S-SR-70: L-6311, L-63119, L-6309, L-63096 from junction with L-2203 to L-6213. Views of Atlantic Ocean, Dartry Range, Ox Mountains, Knocknarea.	Full and mixed.	Visibility along the route.	Yes.
	S-SR-7: N-59 Dromore West to Beltra. Views of Atlantic Ocean and Ox Mountains.	Full and mixed.	Visibility along the route.	Yes.
Recreational Routes	Sligo Way: 80 km route that traverses the County of Sligo in the northwest of Ireland from Lough Talt, in the Ox Mountains near the Mayo border, to the town of Dromahair in County Leitrim.	Full and mixed.	Visibility along the route, which is L2702.	Yes.

Receptor	Description	Theoretical Visibility	On-site Visibility Appraisal	Scoped In
	Lough Easky Loop: This walk takes you on lakeshore tracks, laneways and minor roads in a loop around the shoreline of Lough Easky, which is situated in the heart of the Ox Mountain range.	Mixed.	Visibility along the route.	Yes.
Cultural Heritage and Tourist Destinations	Wild Atlantic Way: Tourist driving route along the Irish west coast from the Inishowen Peninsula in the north down to the town of Kinsale, County Cork, in the south.	Mixed to Full.	Visibility along the route, in the opposite direction from sea views.	Yes.
	Cooper's Lodge: Ruins of an 1830's hunting lodge with local cultural heritage value. Not a recorded national monument. The lodge sits within the boundary of the Proposed Wind Farm.	Full.	Visibility from the site to the northeast and southwest.	Yes.
Settlements	Co. Sligo: Dromore West (Serviced Village)	Full.	Potential visibility from the village.	Yes.
Transport Routes	N59 National Road.	Full.	Visibility along the route.	Yes.
	L2702 Local Road passing through the Proposed Wind Farm in N-S orientation, aligns with Sligo Way and SR-58 along multiple portions.	Full.	Visibility along the route.	Yes.
5 to 10km				
Designated Scenic Routes	S-SR-20: R-297 from Scurmore to Dromore West. Views of Killala Bay and Atlantic Ocean.	Full.	Visibility to the east, in the opposite direction of designated views. Limited visibility to the west.	Yes.
	S-SR-53: Coast road from R-297 at Dromore West to N-59 at Beltra (L-2302 & L-2204). Views of Atlantic Ocean, Sligo Bay, Ballysadare Bay, Ox Mountains, Knocknarea and Ben Bulben.	Full.	Visibility along the route.	Yes.
	S-SR-56: Aughris Head (L-2301 turning onto L-6301) between junctions with	Full.	Visibility from the route, in	Yes.

Receptor	Description	Theoretical Visibility	On-site Visibility Appraisal	Scoped In
	Beltra - Dromore West coastal road (L-2302). Views of Knocknarea, Ben Bulben, the coast and Sligo & Donegal Bays.		the opposite direction of the designated views.	
Recreational Destinations	Aughris Coastal Walk: Located some 6km from the N59 national route between Sligo and Ballina.	Full.	Visibility from the walking route.	Yes.
Transport Routes	R297 Regional Road, traversing the north and west of the LVIA Study Area primarily along the coast.	Primarily Full.	Potential visibility from elevated vantage points.	Yes.
10 to 15km				
Designated Scenic Routes	Co. Mayo SR-15: Traversing E-W from Knockasliggaun peak, through Bunnyconnellan village.	None to Full.	Visibility from the western portion of the route.	Yes.
Recreational Routes	Queen Maeve Trail: Follows sustained climb from Strandhill to the summit of Knocknarea.	Partial.	Visibility along the route.	Yes.
Recreational Destinations	Rosses Point: Point at the entrance to Sligo Harbour from Sligo Bay, near Rosses Point Village.	Partial.	Limited visibility owing to setback distance across the bay.	Yes.
Beyond 15km				
Designated Scenic Routes	Co. Sligo SR-28: L-3203, L-3206, L-3028, L-7229 & L-3208 Views of Dartry Range, Knocknarea, from junction with L-3202 (Streedagh Road) Sligo Bay, Ox Mountains south to Raghly Head loop road.	Full.	Limited visibility owing to setback distance across the bay.	Yes.
Sligo Passage Tomb Landscape	Queen Maeve's Tomb: The hill of Knocknarea on which the cairn is erected is a headland looking out over Sligo Bay.	Partial.	Limited visibility owing to setback distance.	Yes.
Recreational Routes	Kilcummin Loop Walks – Green Loop: 4.7-km loop trail near Lackan, County Mayo.	Full.	Visibility from across the bay.	Yes.
	Kilcummin Loop Walks – Blue Loop: 8.7-km loop trail near Lackan, County Mayo.			

Receptor	Description	Theoretical Visibility	On-site Visibility Appraisal	Scoped In
	Kilcummin Loop Walks – Red Loop: 10.3-km loop trail near Lackan, County Mayo.			

13.5.8.2 Visual Receptors Scoped Out

In some cases, specific visual receptors are scoped out where there is no potential for significant visual effects to occur on account of combination of factors such as distance, visual screening, direction of views and the nature and sensitivity of the receptors at a particular location. These visual receptors and the rationale for scoping them out of the assessment are provided in Table 13-8 below.

Requested Visual Receptors in the South-Southeast of the LVIA Study Area – Scoped Out

As highlighted previously in Section 13.1.7, at the December 2025 pre-planning meeting ACP raised a request for evaluating areas in the southeast of the LVIA Study Area which showed Partial theoretical visibility and areas which contained specific visual receptors including some Recreational Destinations/ Tourist Attractions. The desk study and visibility appraisal determined that no receptors in the south or southeast of the LVIA Study Area have the potential for experiencing landscape and visual effects due to the distance from the site and the reality of none or very limited visibility from these areas. The discussion of theoretical visibility in this area was previously provided in Section 13.3.3.1. The receptors are scoped out of the assessment. This is detailed in the table below.

Table 13-8 Rationale for Visual Receptors Scoped Out

Receptor	Description	Rationale for Scoping Out
Up to 10km		
Designated Scenic Routes	S-SR-55: L-6201 from junction with L-2204 to end. Views of Sligo Bay, Dartry Range, Ox Mountains, Knocknarea.	Visibility is almost entirely screened by vegetation and localised topography.
	S-SR-59: L-8701 & L-8702 from junction with L-4701 at Masshill to junction with R-294 at Largan. Views of Lough Talt and Ox Mountains.	These scenic routes each have small sections of mixed theoretical visibility. No Full theoretical visibility. SR-60 has primarily no visibility.
	S-SR-60: Ladies Brae Road from Carroweden (L-4602 & L-2205) leading to N-59 via L-2304 and L-2303 and continuing northwards to Beltra-Dromore West coastal road (L-2302) via L-6205. Views of Ox Mountains and Atlantic Ocean.	
	S-SR-52: Easkey coastal scenic road (L-2401) between junctions with Dromore West - Easkey road (R297). Views of Sligo Bay, the coast Ox Mountains and Donegal Bay.	Limited to no visibility.

Receptor	Description	Rationale for Scoping Out
	S-SR-61: L-2203 continue existing Scenic Route to junction with N-59. Views of Ox Mountains, Ben Bulben, Ballysadare Bay, Knocknarea.	No theoretical visibility.
	S-SR-71: L-6210 from junction with L-6213 to junction with L-2203. Views of Atlantic Ocean, DartryRange, Ox Mountains, Knocknarea.	
	S-SR-69: Ladies Brae to Beltra via Chapel Street (L-6213). Views of Ox Mountains, Coolera peninsula and Ballysadare Bay.	
	S-SR-62: Carroweden to Coolaney and continuing tojunction with N-59 at Lugnadeffa (L-8601, L-6804 & L-2801). Views of Ox Mountains and Atlantic Ocean.	
Recreational Destinations	Ladies Brae Picnic Area: Picnic area located at the foot of Ox Mountains.	No theoretical visibility.
	Dunmoran Strand: 2.5km hiking trail along the beach to Aughris Head.	Scenic views are in the opposite direction of the Proposed Turbines.
Settlements	Cloonacoll (Service Village)	No theoretical visibility.
Beyond 10km		
Designated Scenic Routes	S-SR-57: Derk Road (L-6215) from junction with Beltra-Dromore West coastal road (L-2204) to sea shore. Views of Ballysadare Bay, Knocknarea, Coolera Peninsula, Coney Island, Rosses Point, Sligo Bay and Ben Bulben.	These designated routes and drives have limited to no theoretical visibility.
	S-SR-48: Airport Road, Strandhill (L-35052), between southern boundary of Business and Enterprise Park and northern boundary of CF-zoned lands. Views of Knocknarea.	
	S-SR-54: L-22041 from junction with L-2204 to end. Views of Ballysadare Bay, Dartry Range, Dunmoran Strand, Ox Mountains.	
	S-SR-16: R-292 at Carrowdough and Culleenamore, Ballysadare Bay between the southern development limit and the Plan limit of Strandhill Local Area Plan at	

Receptor	Description	Rationale for Scoping Out
	Culleenamore House. Views of Sligo Bay, and Knocknarea.	
	M-SR-15: R294 from west of Bunnyconellan to the boundary with Co. Sligo.	
	S-SR-6: N-59 Beltra to Ballysadare. Views of Ballysadare Bay, Slieveward and Knocknarea.	These designated routes have no theoretical visibility.
	S-SR-13: R-292 from Ransboro to Culleenamore House. Views of Knocknarea, Ballysadare Bay, Sligo Bay, Slieve Dargan, Slieve Daeane and Ben Bulben.	
	S-SR-49: Road network to east and south of Knocknarea, between junctions of R292 and L-3502: specifically the Glen Road (L-3507) and L-3506.	
	S-SR-50: L-6101 from junction with N-59 at Corhawnagh Church extending westward to Streamstown and south to N-59 via Lisduff. Views of Ballysadare Bay, Knocknarea and Slieveward (Little Ox Mountains).	
	S-SR-64: L-6102 from junction with N-59 west of Cooney Lough, continuing on L-2101 to junction with L-2801 south of Tullaghan Hill. Views of Ox Mountains, Atlantic Ocean and Cooney Lough.	
	S-SR-18: R-294 from The Gap (Mayo County boundary) to Mullany's Cross. Views of Lough Talt and Ox Mountains.	
	S-SR-46: L-3502 from junction with R-292 at Scardan to Ransboro. Views of Knocknarea.	
	S-SR-45: L-7523, L-7522, L-7518, & L-7520 from junction with R-292 south of Ransboro to R-292 west of Ransboro. Views of Ballysadare Bay, Ox Mountains, Knocknarea.	
	S-SR-17: R-292 from junction with L-7516 (Belladrehid) to junction with L-7523. Views of Ballysadare Bay, Ox Mountains, Knocknarea.	

Receptor	Description	Rationale for Scoping Out
	S-SR-4: N-4 Collooney Bypass from northern roundabout at Collooney to Carrowroe. Views of Ballysadare Bay, Knocknarea, Union Wood, Slieve Daeane, Slieve Dargan.	
	S-SR-51: L-6101 between junction with N-59 at Corhawnagh Church and junction with R-290 south of Ballysadare. Views of Slieveward (Little Ox Mountains).	
	Co. Mayo M-SR-14.	
	S-SR-2: N-16 from Leitrim County boundary to Sligo. Views of Glencar Lake, Ben Bulben and Atlantic Ocean.	
	S-SR-11: R-286 from Sligo to Leitrim County boundary. Views of Lough Gill and Colgagh Lough.	
	S-SR-36: L-3602 along Garavogue River and Lough Gill from Sligo to junction with R-287. Views of Garavogue River and Lough Gill.	
	S-SR-10: R-284 from Carrowroe to junction with road L-3605 north of Ballygawley. Views of Ballygawley Lough, Slieve Dargan and Slieve Daeane.	
	S-SR-65: L-3605, south of Slieve Daeane and Slieve Dargan, between junctions with R-284 and R-287. Views of Slieve Dargan, Slieve Daeane and Lough Dargan.	
	S-SR-19: R-295 from Carrowmaclenany Crossroads to Carrowcrory Crossroads. Views of Kesh Corran and the Bricklieve Mountains.	
	S-SR-40: L-7223 from junction with L-3207 to end. Views of the Dartry Range, Knocklane Head, the rocky shoreline and cliffs, the Atlantic Ocean, Slieve League Cliffs.	Mixed, Partial, or Full theoretical visibility, with no actual visibility due to screening by the intervening landscape and vegetation.
	S-SR-41: L-7225 from junction with L-3208 to end and L-228 to end. Views of Ben Bulben, Knocknarea, and L-7228 Sligo Bay, Ox Mountains, Slieve League Cliffs, Knocklane Head.	

Receptor	Description	Rationale for Scoping Out
	S-SR-42: L-7228 from junction with L-3207 to end of L-72252. Views of Dartry Range, Knocklane Head, Knocknarea, Ox Mountains, Atlantic Ocean.	
	S-SR-28: L-3203, L-3206, L-3028, L-7229 & L-3208 from junction with L-3202 (Streedagh Road) south to Raghly Head loop road. Views of Dartry Range, Knocknarea, Sligo Bay, Ox Mountains.	
	S-SR-34: L-3311 as far as junction at Yeats County Hotel turning south onto Rosses Point Promenade Road (R-291) to village plan development limit. Views of Sligo Bay and Harbour, Coney Island, Knocknarea and Coolera Peninsula, Slieve Dargan, Slieve Daeane, Killery Mountain and Ox Mountains.	
	S-SR-33: Kintogher road (L-3306) from junction with N-15 at Tully (Rathcormack) down to Lower Rosses Road (L-7311) via L-7309 and Cregg road (L-3307). Views of Drumcliff Bay, the coast, Ben Bulben, Kings Mountain, Sligo Bay, Knocknarea, Killery Mountain, Slieve Dargan, Slieve Daeane, Cope's Mountain and Glencar Valley.	
	S-SR-9: R-291 from Sligo to Rosses Point. Views of Sligo Bay and Harbour, Coney Island, Knocknarea and Coolera Peninsula, Slieve Dargan, Slieve Daeane, Killery Mountain and Ox Mountains.	
	S-SR-15: R-292 at Larass, Strandhill, between St. Anne's Church and Sligo Rugby Club (south side). Views of Knocknarea.	
	S-SR-63: Coast road from Mayo County boundary at Rathmurphy northwards to its junction with R-297 at Scurmore. Views of Killala Bay.	
	S-SR-39: L-7213 from junction with L-3203 to end. Views of Atlantic Ocean, Dartry Range, Slieve League Cliffs.	
	S-SR-38: L-7215 from junction L-3203 to end. Views of Atlantic Ocean, Dartry Range, Slieve League Cliffs, Inishmurray.	

Receptor	Description	Rationale for Scoping Out
	S-SR-1: N-15 from Bunduff Bridge (Leitrim County boundary) to Sligo. Views of Atlantic Ocean, Ben Bulben, Kings Mountain and Benwiskin,	
	S-SR-14: R-292 at Larass, Strandhill, immediately north of St. Anne's Church and Rectory, to junction with road L-3502 at Scardan. Views of Sligo Harbour, Sligo Bay and Ben Bulben.	Almost entirely no theoretical visibility on these designated routes.
	S-SR-47: Ransboro road (L-3503) at Larass, Strandhill, between St Anne's Church and the eastern development limit of the Strandhill Plan. Views of Sligo Bay and Knocknarea.	
Sligo Passage Tomb Landscape	Carrowmore Megalithic Cemetery: The oldest and the densest concentration of Neolithic tombs in Ireland.	No theoretical visibility.
	Carn's Passage Tomb: Flat-topped cairn strategically situated on a natural summit ridge on the southeastern outskirts of Sligo town.	
Recreational Routes	Western Way (Mayo): Linear 150 km walking route from Leenaun to the village of Ballycastle.	Very limited visibility or none at all due to the setback distance from the site, as well as screening by topography and vegetation within the landscape.
	Drumsheen Loop – Bonniconnlan: Follows bog tracks, quiet roads and green laneways straddling the R294 in the shadow of the Ox Mountains.	
	The Northwest Cycle Trail: 78.5-mile cycle route through counties Donegal, Tyrone, Fermanagh, Leitrim, and Sligo.	
	Foxford Way Loop: Short loop from Foxford Town, passing alongside the Admiral William Brown Memorial Park.	
	Killaspugbrone Loop: Remote walk passes the early Christrian site of Killaspugbrone church and follows a variety of coastal habitats around Sligo Airport runway, returning on roadside footpaths.	
	Belleek – Nature Trail: Loop in County Mayo.	No visibility due to woodland surroundings.

Receptor	Description	Rationale for Scoping Out
	Belleek Wood Greenway: Walking and cycle trail through mature woodland near River Moy.	
	Glen Wood: Forest walk situated beneath Ox Mountain peaks and overlooking Ballisodare Bay.	No theoretical visibility.
	Union Wood – Oakwood Trail: Oak woodland formerly part of Cooper Estate.	
	Hazelwood Nature Trail: Lakeshore and inland walk with views of Wolf and Bernard's Islands close by while across Lough Gill Church, Goat and Cottage Islands and Dooney Rock.	
	Dooney Rock – Nature Trail: Coniferous forest path leading to the viewing point of Dooney Rock.	
	Larganmore Loop: 11.4km loop trail near Callow, County Mayo.	
	Prebaun Loop: 7.4km loop trail near Callow, County Mayo.	
Recreational Destinations/ Tourist Attractions	Eagles Flying: Ireland's largest sanctuary for Raptors and Owls, situated on more than 27 ha of mature parklands near Ballymote.	No theoretical visibility.
	Coney Island Drive: Island in Sligo Bay between Rosses Point and Ben Bulben in the north, and Strandhill and Knocknarea to the south.	Very limited visibility owing to setback distance across the bay.
	Strandhill Beach: 11km long, with magnificent views of Knocknarea Mountain, Benbulben, Sligo Bay, and Coney Island.	
	Sligo Abbey: Dominican priory in Sligo town, founded in the mid-thirteenth century.	No visibility due to surrounding built structure of the town.
OSi Viewing Areas	No.209: View from Ladies Brae on the Sligo Way. Views to the northeast.	None to very little theoretical visibility.
	No.144: View from local road overlooking Ballysadere Bay. Views to the south.	

Receptor	Description	Rationale for Scoping Out
	No.33: View from R292 overlooking Sligo Harbour. Views to the north.	
	No. 26: View from Northwest Cycle Trail and Sligo scenic drive of Lough Gill. Views looking southeast.	
	No.188: View from local road overlooking Aghamore Bay and Tobernalt Bay. Views looking south.	
	No.185: View from the local road on the Northwest Cycle Trail. Views looking northeast.	
Settlements	In Co. Sligo: Coolaney, Tobercurry, Toorlestraun, Enniscrone, Strandhill, Ransboro, Ballysdare, Coolooney, Ballinacarrow, Bunnanadden, Curry, Banada, Adare, Bellaghy, Ballymote, Ballygawley, Sligo Town, Ballycar, Rathcormac, Drumcliff, Carney. In Co. Mayo: Ballina, Bunnyconncelan, Killala, Attymass, Charlestown.	No theoretical visibility, or very little theoretical visibility at great distance.

13.5.9 Photomontage Viewpoint (VP) Selection

Photomontage imagery was captured at 15 no. viewpoints for full assessment in this LVIA including the assessment of cumulative effects. Photomontages VP01-VP15 represent the most sensitive receptors where open visibility of the Proposed Turbines occurs and provide a good geographical spread of views surrounding the Proposed Turbines. All VPs are mapped above in Figure 13-14 Visual Baseline Map.

Table 13-9 Summary of Viewpoints VP01-VP15

Viewpoint No.	Description	Grid Ref. (ITM)
VP01	**SR-28 at Raghly:** View from Co. Sligo Scenic Route SR-28 in the townland of Raghly, near Rosses Point. Located approximately 16.4km northeast of the nearest proposed turbine.	E: 557849 N: 841914
VP02	**Knocknarea/ Queen Maeve's Tomb:** View from Queen Maeve's Tomb on Knocknarea Mountain within the Sligo Passage Tomb Landscape. Located approximately 15.6km northeast of the nearest proposed turbine.	E: 562501 N: 834805
VP03	**Aughras near SR-56:** View from the end of the local road at Aughras Coastal Walk trailhead in the townland of Aughras, near Co. Sligo Scenic Route SR-56. Located approximately 7.7km north of the nearest proposed turbine.	E: 550730 N: 836193

Viewpoint No.	Description	Grid Ref. (ITM)
VP04	**SR-53 at Garryduff:** View from Co. Sligo Scenic Route SR-53 in the townland of Garryduff, near St. Mary's National School - Kilrusheighter. Located approximately 5.8km north of the nearest proposed turbine.	E: 549520 N: 834734
VP05	**SR-70 and SR-7 at Doonycoy:** View from Co. Sligo Scenic Routes SR-70 and SR-7, and the N59 National Road in the townland of Doonycoy. Located approximately 3.8km north of the nearest proposed turbine.	E: 547171 N: 833078
VP06	**SR-58 at Lough Easky:** View from Co. Sligo Scenic Route SR-58 in the townland of Cloonacool, on the Sligo Way waymarked walking trail and Lough Easky Loop. Located approximately 2.9km south of the nearest proposed turbine.	E: 544824 N: 823287
VP07	**SR-58 at Farranmacfarrell:** View from Co. Sligo Scenic Route SR-58 in the townland of Farranmacfarrell. Located approximately 2.9km northwest of the nearest proposed turbine.	E: 542403 N: 830962
VP08	**SR-20 at Dromore West:** View from Co. Sligo Scenic Route SR-7 in the village of Dromore West, in the townland of Knockaculleen. Located approximately 5.2km from the nearest proposed turbine.	E: 542751 N: 833887
VP09	**SR-53 at Ballygilcash:** View from Co. Sligo Scenic Route SR-53 in the townland of Ballygilcash. Located approximately 5.8km north of the nearest proposed turbine.	E: 542625 N: 834526
VP10	**SR-20 and SR-52 at Easky:** View from Co. Sligo Scenic Routes SR-20 and SR-52 in the townland of Bunowna in Easky village. Located approximately 11.1km northwest of the nearest proposed turbine.	E: 537818 N: 837861
VP11	**SR-15 at Corimla South:** View from Co. Mayo Scenic Route SR-15 and the R294 Regional Road in the townland of Corimla South. Located approximately 15.7km southwest of the nearest proposed turbine.	E: 530006 N: 818416
VP12	**SR-63 at Scurmore:** View from Co. Sligo Scenic Route SR-63 in the townland of Scurmore. Located approximately 15.9km west of the nearest proposed turbine.	E: 527514 N: 828144
VP13	**Killala Bay:** View looking across Killala Bay from the trailhead viewing area for Killcummin Loop Walks in the townland of Ballinlena, on the western shore of Killala Bay. Located approximately 23.9km west of the nearest proposed turbine.	E: 521231 N: 836793
VP14	**Doonbeakin:** View from the L6308 Local Road in the townland of Doonbeakin. Located approximately 1.3km north from the nearest proposed turbine.	E: 545172 N: 830138
VP15	**SR-58 at Crumhach:** View from Co. Sligo Scenic Route SR-58 and the L2702 Local Road in the townland of Crumhach. Located approximately 1.2km northwest of the nearest proposed turbine.	E: 543218 N: 829464

13.6 Cumulative Context

13.6.1 Wind Farms in the Study Area

Table 13-10 below lists wind farm developments identified within the LVIA Study Area which are included in the photomontage graphics and cumulative impact assessment for this LVIA; these are mapped below in Figure 13-15 "Cumulative Context Map."

Note that two of the below listed developments, Dunneill and Kingsmountain Wind Farms, form the Existing Wind Farm within the Proposed Wind Farm. The 23 no. Existing Wind Farm turbines will be removed as part of the Proposed Project and are therefore not rendered into the "Proposed Views" of the *Photomontage Booklet* and are not shown in the cumulative context map.

Table 13-10 Cumulative Wind Farms identified in the LVIA Study Area

Cumulative Wind Farm Name	Status	No. of Turbines	Distance to Proposed Turbines	Hub Height	Tip Height
Black Lough Wind Farm	Existing.	4 no.	4.4km	78.33m	124.33m
Carrowleagh 1 Wind Farm	Existing.	13 no.	8.0km	64m	99.5m
Cloonkeelaun Wind Farm	Existing. (Single Wind Turbine.)	1 no.	6.6km	78.33m	124.33m
	Existing. (2 Wind Turbines.)	2 no.	6.7km	78.33m	124.33m
	Existing. (Carrowleagh WF Extension.)	3 no.	6.9km	64m	99.5m
Strokane Single Turbine (Cloonkeelaun)	Permitted.	1 no.	7.1km	103.9m	149.9m
Dunneill Wind Farm	Existing. Not mapped below; will be removed as part of the Proposed Project.	13 no.	0.5km	49m	75m
Firlough Wind Farm	Permitted.	13 no.	8.4km	107.5m	185m
Kingsmountain Wind Farm	Existing. Not mapped below; will be removed as part of the Proposed Project.	10 no.	0.1km	60m	100m
Bunnyconnellan Wind Farm	Existing.	12 no.	13.3km	64m	99.5m

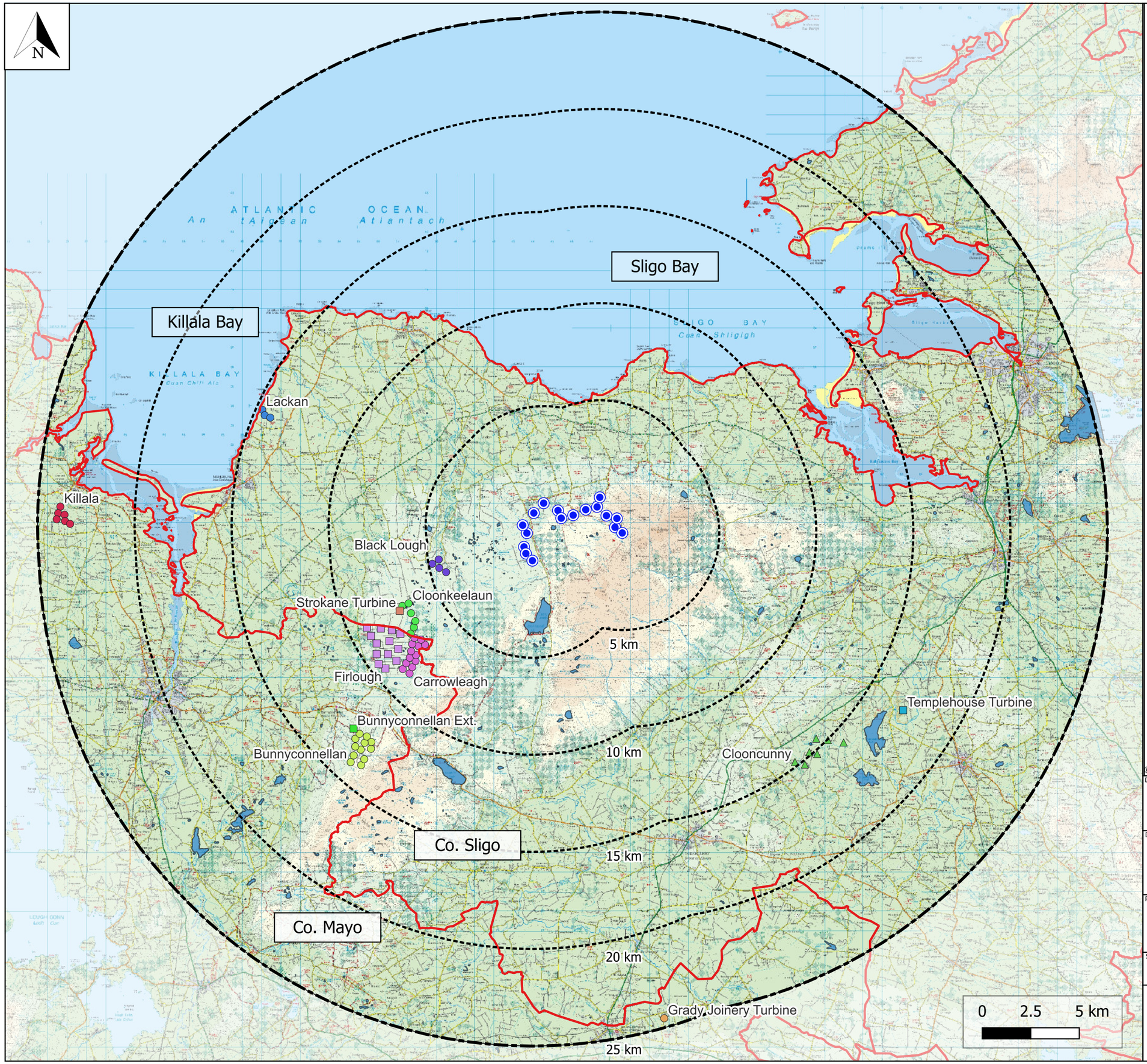
Cumulative Wind Farm Name	Status	No. of Turbines	Distance to Proposed Turbines	Hub Height	Tip Height
Grady Joinery Wind Farm	Existing.	1 no.	24.5km	75m	125m
Killala Wind Farm Phase 1	Existing.	5 no.	23.7km	73.5m	126m
Killala Wind Farm Phase 2	Existing.	1 no.	23.3km	74.5m	125m
Lackan Wind Farm	Existing.	3 no.	14.4km	64m	99.5m
Clooncunny Wind Farm	Proposed.	7 no.	15km	Not Available.	180m
Templehouse Single Turbine	Permitted.	1 no.	17.1km	110.13m	180m

"Existing" wind energy developments are currently operational in the baseline landscape at the time of conducting this LVIA. "Permitted" wind energy developments are either under construction or permitted (consented) at the time of conducting this LVIA; these developments have a high probability of being operational in a future receiving landscape. "Proposed" wind energy developments are well-developed wind farm proposals with project specifications in the public domain at the time of conducting this LVIA. Cumulative effects between the Proposed Project and the development within this category are more uncertain and are reliant on an outcome of the planning and consenting system.

The methodology and rationale for the search process of identifying cumulative wind farms for this LVIA are reported in *Appendix 13-1: LVIA Methodology*. The appendix includes the process for assessment of cumulative landscape and visual effects including how cumulative wind farms are visually presented within the *Photomontage Booklet*.

13.6.2 Potential for Cumulative Landscape and Visual Effects

Figure 13-15 maps all cumulative wind energy developments in the LVIA Study Area. The potential for cumulative landscape effects is very limited with regard to cumulative material impacts within the surrounding landscape of the Proposed Wind Farm, as no other wind energy developments are within 4km of the Proposed Turbines. The closest cumulative development to the site is the existing Black Lough Wind Farm located 4.4km to the southwest, sited in a lower elevation river valley between the Easky and Gowlan Rivers which constitutes a separate landscape from that of the Proposed Wind Farm. The potential for cumulative visual effects is very limited owing to the intermittent nature of visual connection between wind farms at great distance from each other. Cumulative developments are primarily concentrated between 4-15km to the southwest of the Proposed Wind Farm; see discussions of cumulative effects in Section 13.7.4.



Map Legend

- Ireland County Boundaries
- LVIA Study Area (25km)
- Proposed Turbines

Existing Wind Farms

- Black Lough Wind Farm
- Bunnyconnellan Wind Farm
- Carrowleagh Wind Farm
- Cloonkeelaun Wind Farm
- Grady Joinery Turbine
- Killala Wind Farm
- Lackan Wind Farm

Permitted Wind Farms

- Firlough Wind Farm
- Strokane Single Turbine (Cloonkeelaun)
- Templehouse Single Turbine
- Bunnyconnellan Wind Farm Extension

Proposed Wind Farms

- Clooncunny Wind Farm

Note regarding the Existing Wind Farm: Dunneill and Kingsmountain turbines are not included in this map.

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Drawing No.

Figure 13-15

Drawing Title

Cumulative Context Map

Project Title

Crumhach Wind Farm, Co. Sligo

Scale	Project No.	Date	Drawn By	Checked By
1:190,000	230841	2026.06.11	RS	MW

13.7 Likely Significant Landscape and Visual Effects

13.7.1 "Do-Nothing" Scenario

An alternative land use option to repowering the Existing Wind Farm as part of the Proposed Project would be to leave the Existing Wind Farm site as it is, with no changes made to the existing operating 23 no. wind turbines within the Existing Wind Farm. In doing so, environmental effects in terms of emissions are likely to be neutral for the short term, however 13 no. of the existing turbines (existing Dunneil Wind Farm) are due to be decommissioned in accordance with their planning permissions in 2039. Once the 13 no. turbines are decommissioned, there will be a negative effect on greenhouse gas emissions. The 10 no. turbines which were commissioned in 2003 will be left in situ (existing Kingsmountain Wind Farm). However, these machines are aging and are not as efficient as the newer machines. Although these turbines do not have a decommissioning date, they will eventually break down and have to be decommissioned. The opportunity to continue capturing the available renewable energy resource with the Existing Wind Farms would be lost.

An alternative land use option to developing a renewable energy project in the greenfield sections of the Proposed Wind Farm (i.e areas of the Proposed Wind Farm located outside the footprint of the Existing Wind Farm) would be to leave the area as it is with no changes made to the current land use practices of commercial forestry, turf cutting, and public road corridor.

In implementing the 'Do-Nothing' alternative, however, the opportunity to capture a significant part of Co. Sligo's renewable energy resource would be missed, as would the opportunity to contribute to meeting Government and EU 2030 targets for the production and consumption of electricity from renewable resources and the reduction of greenhouse gas emissions. In addition, the opportunity to meet the obligations as laid out in the Climate Action and Low Carbon Development Act 2021 will be lost. The opportunity to generate local employment, development contributions, and rates would also be forgone. Furthermore, the opportunity to implement the measures outlined in the Biodiversity Management and Enhancement Plan (BMEP) as outlined in Appendix 6-4 would also be lost.

As per EPA (2022), the LVIA in this chapter considers all "*likely future receiving environments*." Therefore, the potential landscape and visual impacts in a "Do-Nothing" Scenario (which can also be considered a potential future receiving environment) are considered in the impact assessments below.

13.7.2 Construction Phase Effects

As outlined in Section 4.3.1 of Chapter 4, the following infrastructure onsite will be removed during the construction phase of the Proposed Project:

- Removal of 23 no. existing turbines,
- Removal of 1 no. meteorological met mast,
- Removal of onsite 20kV underground internal electrical cabling.

The turbines will be disassembled in reverse order to how they were initially constructed. A crane will be used to remove the blades from the hub. The blades will then be removed following the methodology set out in Section 4.8.1 of Chapter 4 of this EIAR. The remaining onsite infrastructure includes a number of areas of existing hardstanding associated with the turbine foundations, met mast hardstand, onsite quarry/borrow pits and access tracks and these will be utilised in the Proposed Project.

After removal of the existing turbines, the 17 no. Proposed Turbines will be constructed. The Proposed Project aims to utilise the existing infrastructure within the site as much as possible. Five of the

Proposed Turbines will be located on existing tracks where existing turbines are already sited. Further details on the construction phase are discussed in Chapter 4.

It is estimated that the construction phase of the Proposed Project will last between 18 and 24 months. Construction of the development will involve the installation of the 17 no. Proposed Turbines with a maximum blade-tip height of 180m and all associated works, as well as the construction of the proposed onsite 110kV substation and associated works including underground cabling.

Construction phase effects will also include the associated effects resulting from the movement of construction and turbine transport vehicles into and out of the Proposed Wind Farm, to allow for construction of all Proposed Project elements.

13.7.2.1 Landscape Effects during Construction Phase

Proposed Wind Farm

The earthworks such as cut and fill required to facilitate construction of the Proposed Project will have the greatest potential for direct landscape effects where the physical fabric of the landscape is materially altered. The Proposed Project makes use of as much of the existing infrastructure of the Existing Wind Farm as possible. This reduces the requirement for new internal site roads or hardstanding areas, thereby reducing the extent of direct landscape effects on the site. Where excavation is required, the existing landcover, vegetation and spoil will be removed. In most instances, groundworks and excavation trenches will be re-instated upon completion of construction. Where peat and spoil arising from construction activities is managed within the Proposed Wind Farm, the vegetative top-soil layer will be removed and re-instated following peat and spoil management taking place. The construction activities may potentially cause temporary impacts on the landscape such as the creation of temporary structures, dust, minor soil erosion and minor alterations to drainage. The construction works will be temporary/short-term in nature and completed as soon as practically possible. It is considered that this is a “Direct,” “Short-term,” “Negative” effect with a significance rating of “Slight” in terms of landscape effects, which is not significant in the context of EIA.

Proposed Grid Connection Route

Current land-use along the Proposed Grid Connection Route comprises public road corridor, pastures, low density residential, industry, commercial forestry and land principally used for agriculture with significant areas of natural vegetation; therefore, in terms of landscape character it is considered a modified working landscape. The Proposed Grid Connection Route passing through these land-use areas is to be located underground; therefore, the greatest effects attributed to this element of the Proposed Project will occur during the construction phase. The majority of underground electrical cabling works are to be carried out along existing public road corridors. The construction phase of the proposed underground cabling will be temporary, localised, and transient in nature, as the works move along the Proposed Grid Connection Route. The works will include soil stripping, excavation, and other associated construction activities. These activities will cause temporary change to the physical landscape along the Proposed Grid Connection Route; however, these changes will be localised to the immediate environment surrounding the route and will not affect the character of the landscape setting or visual amenity of the wider area. The Proposed Grid Connection Route works are likely to cause “Direct,” “Short-term,” “Negative” landscape effects with a significance rating of “Slight,” which is not significant in the context of EIA.

Mitigation Measures for Landscape Effects during Construction

The above predicted landscape effects during construction assume the implementation of the following mitigation measures for the Proposed Wind Farm and Proposed Grid Connection Route. All construction activities will follow best practice methods to reduce impacts upon the environment and

landscape of the Site. Further details are presented in the Construction and Environmental Management Plan (CEMP) contained in Appendix 4-5 of this EIAR. The following measures should be implemented to mitigate landscape effects during the construction phase of the Proposed Project:

- In all circumstances, excavation depths and volumes will be minimised, and excavated material will be re-used where possible.
- For the Proposed Grid Connection Route, where the cable trench is to be located in the road verge, subsoil will be piled on-site and re-used after cabling works. Should any medium planting be removed, it should be replaced with the same or similar species whenever it is not possible to salvage and reinstate.
- Any areas of bare soil remaining after the landscaping phase will be seeded as soon as possible with a grass-seed mix to minimise sediment run-off.

13.7.2.2 Visual Effects during Construction Phase

Proposed Wind Farm

The most substantial visual effects during the construction phase will arise from the removal of the existing turbines, removing the blades and disassembling towers, and then the requisite construction activities to build the new Proposed Turbines, such as building tower sections and erecting the turbines. There will be temporary scenarios during the construction phase where the Existing Wind Farm turbines are removed and when the Proposed Turbines will be partially constructed, and may be seen as either stand-alone tower sections, or incomplete turbines where only one or two blades are visible. The equipment and vehicles required to remove, transport, and erect the wind farm components include large cranes and large haulage vehicles. These construction activities will cause "Direct," "Short-term" and "Negative" visual effects with a significance rating of "Slight," which is not significant in the context of EIA.

Site Access Tracks and Hardstand Areas. The proposed access tracks and hardstand areas are flat features and will be most visible within their immediate surroundings, which includes the designated scenic route SR-53/ Sligo Way waymarked walking trail which passes through the Proposed Wind Farm. It is noted that recreational use of this amenity route will be temporarily restricted during the Construction Phase for safety purposes. A full description of the additional and existing road infrastructure layout is included in Chapter 4. Use will be made of the Existing Wind Farm access tracks and other existing tracks on site as much as possible. Some tracks will be upgraded appropriately whilst several stretches of new internal tracks will need to be constructed. The impact of the construction of these flat and hard surfaces will be very localised. The visual effects arising from the construction of access tracks and hardstand areas are likely to be "Direct," "Short-Term" and "Negative" with a significance rating of "Slight," which is not significant in the context of EIA.

Proposed Onsite 110kV Substation. During the construction phase, visual effects will occur as the proposed onsite 110kV substation and its associated temporary construction compound are built due to the earthworks and requisite construction activities; these will cause a substantial but localised change to views in the immediate area. As established in the baseline investigations, the proposed onsite 110kV substation is to be located within a tract of commercial forestry between the locations of Proposed Turbines T6 and T7 in the northwest corner of the Proposed Wind Farm. Therefore, during construction works, visibility of the proposed onsite 110kV substation and adjacent temporary construction compound will be limited from along the road. Visual effects of the proposed substation are likely to be highly localised, "Direct," "Short-Term" and "Negative," with a significance rating of "Slight," which is not significant in the context of EIA.

Proposed Grid Connection Route

As reported above, the greatest effects attributed to the underground Proposed Grid Connection Route will occur during the construction phase and are largely related to temporary landscape changes. The

works will include roadside vegetation removal, soil/road surface stripping, excavation and other associated construction activities. These activities will cause temporary change to the physical landscape along the underground Proposed Grid Connection Route. Changes will be localised to the immediate environment surrounding the underground cabling and will not permanently affect the character of the landscape setting at the ground-level or the visual amenity of the wider area. The Proposed Grid Connection Route underground cabling works are likely to cause "Direct," "Short-Term" and "Negative" visual effects with a significance rating of "Slight,"" which is not significant in the context of EIA.

Turbine Delivery Route

Works such as temporary link roads and road widening will be required along the turbine delivery route to accommodate the large vehicles used to transport turbine components to Proposed Wind Farm (see Section 4.4.3 in Chapter 4 for specific details). In some instances, minor temporary alterations will be required to the existing streetscape and roundabout islands, temporary local road widening, wall removals, overruns of roundabout island and temporary relocation of some signs and street furniture. Full details of the assessment are included as part of the traffic impact assessment set out in Chapter 15: Material Assets, Section 15.1 of this EIAR. The landscape value and sensitivity of these temporary works areas are deemed to be "Low" and the change to occur will be highly localised. These works are likely to cause "Direct," "Short-Term" and "Negative" visual effects with a significance rating of "Slight," which is not significant in the context of EIA.

Mitigation Measures for Visual Effects during Construction

General housekeeping measures, necessary for Health & Safety requirements, will ensure that the active construction areas will be kept tidy, mitigating localised visual impacts during the Construction Phase.

13.7.3 Operational Phase Effects

Planning permission is being sought for a 35-year operational life of the Proposed Turbines from the date of full commissioning of the wind farm and subsequent decommissioning which will involve the removal of the Proposed Turbines from the Proposed Wind Farm. Potential impacts of the Proposed Project during the operational phase are defined as "Long-Term" as per the definition for duration in EPA (2022). The Proposed Turbines would be removed from the Proposed Wind Farm at the end of the operational phase. Therefore, potential landscape and visual impacts effects on receptors caused by the Proposed Turbines are not permanent and are "Reversible."

13.7.3.1 Landscape Effects during Operation

13.7.3.1.1 *Landscape of the Proposed Wind Farm*

As reported above in Section 13.4.1.2 of the Landscape Baseline, 15 out of 17 no. Proposed Turbines are located within "Sensitive Rural Landscape" and the remaining 2 no. are located within "Normal Rural Landscape."

Importantly, there is no published Wind Energy Strategy or Landscape Character Assessment for Co. Sligo, therefore the landscape sensitivity designations provided by the SCDP 2024-2030 do not take into account the consideration of landscape sensitivity specifically to wind energy development and also do not consider landscape character assessment. Wind turbines by their nature are tall vertical objects, and thus have the potential to visually interfere with the character, integrity and uniformity of vulnerable features when viewed from the surroundings.

The landscape of the Proposed Wind Farm comprises a sparsely populated modified working landscape of cutover peat bog, commercial forestry and agricultural fields and already contains existing

infrastructure of the Existing Wind Farm. The landscape has no unique or distinctive qualities of county, regional or national renown; however, two designated scenic routes pass through the site adjacent to cutover peat, commercial forestry stands and agricultural fields. There is recreational value associated with the Sligo Way waymarked walking trail which passes through the Site. The scenic views associated with the designated scenic routes and Sligo Way are primarily long-ranging views from the highest elevated points within the Proposed Wind Farm, looking out over coastal lowlands to the north and west.

The landscape of the Proposed Wind Farm will undergo substantial changes by the introduction of the Proposed Turbines as vertical, man-made structures across a much larger vertical and horizontal extent of the site; however, the impact is offset by the fact that wind energy infrastructure already exists within the site and will be re-utilised as much as possible.

The Proposed Turbines themselves are visually prominent, vertically higher than the Existing Wind Farm turbines and covering a larger geographical area, and the material footprint on the landscape itself is over a moderate extent of the total land area and retains large areas of natural landscape between the turbine hardstand areas. On balance, there will be a "Substantial" magnitude of change to the landscape and in localised areas, within the Proposed Wind Farm, where the landscape is materially altered (infrastructure footprint) to accommodate new wind energy infrastructure. The landscape value and sensitivity of the Proposed Wind Farm as determined in the Landscape Baseline of this LVIA is reported as "Low."

The "Low" sensitivity balanced with "Substantial" magnitude of change amounts to long-term landscape effects of "Moderate" significance upon the physical fabric of the landscape of the Proposed Wind Farm (see *Appendix 13-1: LVIA Methodology*, Section 1.7 "Assessing Landscape Effects"). The landscape effects shall be highly localised to the footprint of the Proposed Project within the Proposed Wind Farm. Landscape effects on the perceptual and aesthetic character of the Proposed Wind Farm are deemed to be "Direct," "Long-Term" and "Negative" with a significance rating of "Moderate," which is not significant in the context of EIA.

Mitigation Measures for Landscape Effects of the Proposed Wind Farm during Operation

Regarding mitigation measures to help reduce landscape effects of the Proposed Wind Farm, this LVIA points to the Biodiversity Management and Enhancement Plan (BMEP) which has been prepared as part of this EIAR (see Appendix 6-4). The BMEP will have the dual effect of providing ecological enhancement to the landscape area of the Proposed Wind Farm as well as enhancement of the landscape character of the area of the Proposed Wind Farm, namely in the southwest part of the Proposed Wind Farm comprising cutover peatland, thereby also mitigating effects on landscape character during the Operational Phase.

The following measures from the BMEP which have been included in the Proposed Wind Farm design are deemed to have the effect of avoiding or reducing direct effects on landscape receptors, meaning individual landscape features and the landscape character of the Proposed Wind Farm as a whole:

- In the southwest of the Proposed Wind Farm, where drainage and erosion have caused significant areas of bare peat, steps will be taken to reinstate vegetation in the areas.
- Larger areas of bare peat will be revegetated using mulching and textile application after flow management has been instated.
- Hydrological flow management and grazing management will be instated to ensure natural revegetation of the peatland areas.

In addition to measures from the BMEP, factors resulting from the early-stage design modifications contribute to ensuring that potential landscape character effects and visual effects are mitigated as much as possible during the Operational Phase. The early iterations of the Proposed Wind farm design are detailed in the EIAR Chapter 3: Site Selection and Reasonable Alternatives. The factors include:

- The Proposed Wind Farm utilises as much built infrastructure from the Existing Wind Farm within the viable area outlined above as possible, namely 3.7ha (41%) of the 9.0 ha development footprint of the Existing Wind Farm.
- The number of turbines in the initial design of the Proposed Wind Farm was reduced from 25 no. to 17 no. Proposed Turbines.
- Turbines were removed to ensure hydrological connectivity between greenfield sites and to avoid risk of peat instability and risk of impacting landscape areas of high ecological sensitivity.
- The Proposed Turbines were micro-sited to ensure set-back distance from residential receptors and appropriate spacing between turbines in the final proposed design, thereby following guidance in the Guidelines (DoEHLG, 2006) and the Draft Guidelines (DoHPLG, 2019).

13.7.3.1.2 Landscape of the Proposed Grid Connection Route

As reported above in Section 13.4.1.2 of the Landscape Baseline, the majority of the Proposed Grid Connection Route (33.5km or approximately 84% of the total length) passes through "Normal Rural Landscape" and the remaining length passes through "Sensitive Rural Landscape" and neither of these two designations from the SCDP 2024-2030 consider sensitivity to wind energy development or landscape character assessment as determining factors. As the Proposed Grid Connection Route cabling is located underground, landscape effects during the Operational Phase will be "Imperceptible" once vegetation has re-established along the roadway following earthworks during the Construction Phase. In terms of duration and quality, the Proposed Grid Connection is a permanent structure within the material of the landscape within the Site; therefore, the duration of effect is "Direct" and "Permanent" and the quality is "Negative." The landscape effects occurring during the Construction Phase of the Proposed Grid Connection Route are reported above in Section 13.7.2 Construction Phase Effects.

13.7.3.1.3 Landscape of the Proposed Onsite 110kV Substation

The proposed onsite 110kV substation is to be located within a tract of commercial forestry and therefore the infrastructure will be entirely visually enclosed by mature trees. The landscape character of this part of the Proposed Wind farm site is degraded by forestry activities. In addition, the landscape character is degraded by the presence of the existing water treatment plant which occupies the landscape in the northwest corner of the Proposed Wind Farm (this is depicted previously in Figure 13-12 in Section 13.4.3). Considering that the site of the proposed substation is a heavily modified landscape due to forestry activities, and that the infrastructure will be surrounded by mature trees thereby limiting potential visibility of the infrastructure, the landscape and visual effects are predicted to be "Direct," "Permanent" and "Negative" with a significance rating of "Not Significant" which is not significant in the context of EIA.

13.7.3.1.4 Landscape Effects on Visually Vulnerable Area

As identified previously in Section 13.4.7 "Landscape Receptors Preliminary Analysis," one feature designated in the SCDP 2023-2030 as a "Visually Vulnerable Area" is located within the Proposed Wind Farm—this is a linear ridgeline located west of Kingsmountain peak. Proposed Turbines T10, T11 and T12 are sited along the ridgeline itself, see red-dashed line in Figure 13-16 above, and T9, T12, T14 and T15 are sited in close proximity to the ridgeline. Siting of these Proposed Turbines along the ridge is considered acceptable with respect to LVIA and the potential for landscape and visual effects in this area; this is explained as follows.

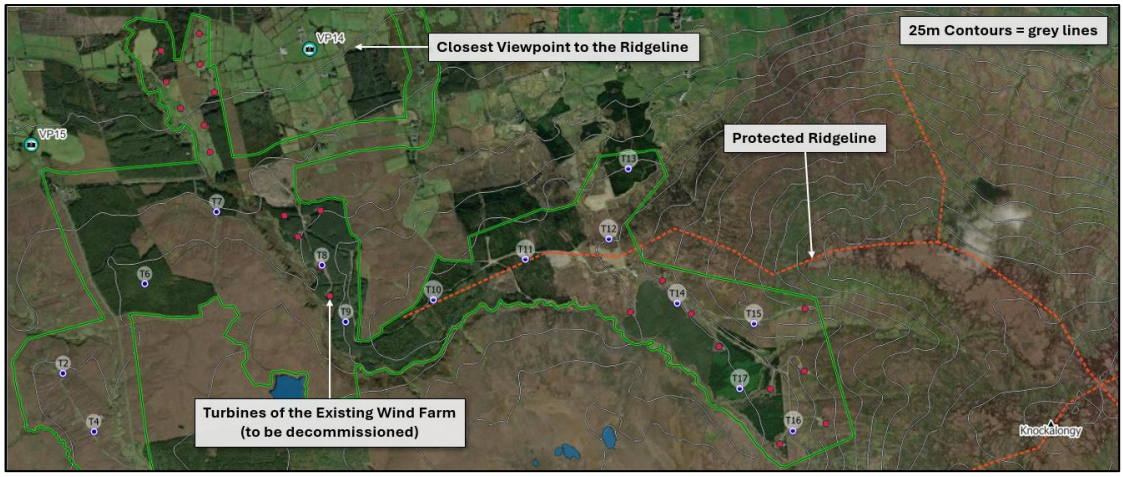


Figure 13-16: Location of "Visually Vulnerable Area" ridgeline in the Proposed Wind Farm

The SDCP 2024-2030 has effectively considered nearly all ridgelines in the county as visually vulnerable, and this is understandable in the context of ridgelines being inherently visible features within the landscape. In the context of the Guidelines (DoEHLG, 2006) and the Draft Guidelines (DoHPLG. 2019), ridgelines in general are ideal features to site wind turbines to help achieve aesthetic balance within "Mountain Moorland" landscape character types. Given the fact that wind turbines have, and will become, a more familiar and accepted component of the Irish landscape over time, their presence on ridgelines therefore may not necessarily carry a high level of perceived visual intrusion. In this case too, the presence of wind turbines in the area of the ridgeline is already established; and moreover, as shown above in Figure 13-16, the land cover of the ridgeline is heavily modified in the form of commercial forestry and crossed with local road networks. Overall, and considering the increasing commonality of views of turbines on or around ridgelines, the Proposed Project design has made good use of the ridgeline to help achieve optimal aesthetic balance for this landscape character type in the context of the Guidelines (DoEHLG, 2006) and the Draft Guidelines (DoHPLG. 2019), which recommends siting on ridgelines and at lower elevations of sweeping mountainside.

While visibility of the Proposed Turbines on the ridge remains an important consideration, the visibility itself does not equate to significant visual impact. VP14 is the closest viewpoint to the ridgeline and shows the view looking up to the ridge from the north and was found to have "Moderate" residual visual effects. On balance, the landscape effects on the protected ridgeline are predicted to be "Long-Term," "Direct," "Neutral" and "Not Significant" which is not significant in the context of EIA.

13.7.3.1.5 Landscape Effects on Co. Mayo Landscape Policy Area 4: Drumlins and Inland Lowlands

Co. Mayo Landscape Policy Area 4 is located approximately 10km from the Proposed Turbines at its closest point, situated to the southwest of the Proposed Wind Farm. Its key characteristics in the MCDP 2022-2028 are primarily working landscapes of undulating areas of pasture, woodland and forest underlain by glacial drumlins as well as incorporating low-lying lakelands considered to have similar abilities to absorb development. The portion of Policy Area 4 which falls within the LVIA Study Area boundary has primarily Full theoretical visibility. Viewpoint VP11 is located within Policy Area 4, greater than 10km from the Proposed Turbines, and found to have "Not Significant" residual visual effects. Considering the policy objectives laid out for Policy Area 4 in the MCDP 2022-2028 (see above in Section 13.4.1.4 Landscape Policy Areas), the Proposed Project will not "*significantly interfere or detract from scenic lakeland vistas*" and will not result in "*detrimental impacts on the landscape at a local or micro level as viewed from areas of the public realm*"; therefore, the landscape effects on Policy Area 4 are predicted to be "Indirect," "Long-Term" and "Negative" with a significance rating of "Not Significant," which is not significant in the context of EIA.

13.7.3.1.6 Assessment of Designated LCA

Regarding the "Significance of Effect" ratings in Table 13-11 below: The definition of classification is taken from the EPA (2022); refer to *Appendix 13-1*, Section 1.7.5 "Landscape Effects Assessment Matrix." The full methodology for conducting the assessment of landscape effects on designated LCAs is provided in *Appendix 13-1: LVIA Methodology*.

In Table 13-11, reference is made to MCDP 2022-2028 Section 10.7 Landscape and MCDP 2022-2028 Vol.4 Supporting Documentation, Landscape Appraisal for County Mayo. A discussion of the assessment outcome follows the table.

Table 13-11: Impact Assessment Table of Mayo LCU-G North Mayo Drumlins

Mayo LCU-G: North Mayo Drumlins	
Map Ref.	LCU-G
Distance from the Site to Nearest/ Furthest Area of LCA	At its closest point, LCU-G is located approx. 10.3km southwest of the nearest Proposed Turbine.
LCA Key Characteristics	From MCDP Vol.4 (p.20) describing LCU-G: › *"Smooth terrain allowing vistas over long distances against a planar surface without breaking up fore and middle ground.* › *Development can have a disproportionate visual impact in such terrain due to an inherent inability to be absorbed, physically or visually.* › *Low vegetation of moorland and bog type grasses.* › *Uniform grassland vegetation allowing long distance visibility."*
LCA Capacity for Wind Energy Development	From MCDP Section 10.4.7, Table 10.1 (p.83): LCU-G is located within the wider Policy Area 4 which is classified as "Medium/High" landscape sensitivity to "Wind Farm" development impact. Therefore, the capacity of LCU-G to absorb wind energy development is deemed "Low." Refer to Section 13.4 Landscape Baseline of Chapter 13 for discussions on policy and landscape sensitivity ratings.
Landscape Sensitivity to Wind Farm Development	**Sensitivity = Medium.** Rationale: LCU-G is valued for its long-ranging views and vistas over primarily flat landscape, thereby allowing greater potential for wind energy developments to be seen within the landscape at greater distances. On balance, the sensitivity of LCU-G to wind energy development is deemed to be "Medium." Refer to Section 1.7.3 "Sensitivity of Landscape Character Areas" in *Appendix 13-1: LVIA Methodology*.
Visibility of the Proposed Project from within the LCA	Due to the overall flat nature of the landscape, most areas of LCU-G show Full theoretical visibility of the Proposed Turbines, which would be viewed from distances greater than 10km. Undulating drumlin topography throughout the landscape allows dense patches of None to Partial theoretical visibility behind the elevated areas.

Mayo LCU-G: North Mayo Drumlins	
	Viewpoint VP11 is located within this LCA, in an area indicating Full theoretical visibility.
Cumulative Effects	No cumulative wind energy developments are located in this LCA; therefore, the cumulative effects are none.
Magnitude of Change	**Magnitude = Negligible.** For the definition of this rating, refer to Section 1.7.4 "Magnitude of Landscape Change" in *Appendix 13-1: LVIA Methodology*.
Significance of Effect	**Medium × Negligible = Minor/Negligible = "Not Significant" (EPA, 2022)** *"An effect which causes noticeable changes in the character of the environment but without significant consequences."* Refer to Section 1.7.5 "Landscape Effects Matrix" in *Appendix 13-1: LVIA Methodology.*
Mitigation Factors	› No infrastructure of the Proposed Project is located in the LCA; therefore, the landscape will not be materially altered as a result of the Proposed Project. › The Proposed Turbines are visible from the LCA in the background of views at very modest scale relative to the landscape and are effectively absorbed into the long-ranging views.

At its closest point, LCU-G North Mayo Drumlins is located approx. 10.3km southwest of the nearest Proposed Turbine. The landscape key characteristics include smooth terrain with long-ranging vistas in which development is thought to have "a disproportionate visual impact" on views. In addition, M-LCU-G is located within MCDP Landscape Policy Area 4 which is classified as "Medium/High" sensitivity to "Wind Farm" development impact. For these reasons, LCU-G was given a sensitivity rating of Medium. As the LCA is located greater than 10km from the Proposed Wind Farm and no elements of the Proposed Project are located within the LCA, the impact is limited to a visual nature with potential views of the Proposed Turbines in the background of landscape vistas. According to ZTV mapping, due to the overall flat nature of the landscape, most areas of LCU-G show Full theoretical visibility of the Proposed Turbines, which would be viewed from distances greater than 10km. Undulating drumlin topography throughout the landscape allows dense patches of None to Partial theoretical visibility behind the elevated areas. Viewpoint VP11 is located within LCU-G and is representative of views in the direction of the Proposed Turbines, from and area of this landscape with Full theoretical visibility. The residual visual effects for VP11 are predicted to be "Not Significant." For these reasons, the magnitude of change for LCU-G is given as "Negligible." On balance, the landscape effects on LCU-G are predicted to be "Indirect," "Long-Term" and "Negative" with a significance rating of "Not Significant," which is not significant in the context of EIA. The key mitigating factors that reduce the potential for effects on landscape character of designated LCAs in the LCA Study Area are listed in the last row of Table 13-11 above.

13.7.3.2 Visual Effects during Operation

13.7.3.2.1 *Viewpoint Assessment Outcomes (Appendix 13-2)*

The impact assessment outcomes of VP01-VP15 are summarised in Table 13-12 below. This table and *Appendix 13-2: Viewpoint Point Assessment Tables* should be read in conjunction with the *EIAR*

Volume 2: Photomontage Booklet. Regarding the Proposed Turbines, whether a visual effect is deemed to be positive, negative or neutral, involves a degree of subjectivity; this approach is based on the GLVIA3 (p.113, para.6.29) which outlines the general subjectivity of describing visual effects in an LVIA context. The GLVIA3 highlights that what appears to be a positive effect to one viewer could be deemed to be a negative effect by another viewer. In this LVIA, all predicted visual effects of the viewpoints below are of "Long-Term" duration and "Direct" impact, and the indication of "Positive," "Negative" or "Neutral" quality of the effect is stated in the discussions.

Table 13-12: Summary of Viewpoint Impact Assessment Outcomes (Appendix 13-2)

VP No.	Name	Distance to the Proposed Turbines	Grid Ref.	Duration and Type of Effect	Nature of Effect	Visual Sensitivity of Receptors	Magnitude of Visual Change	Significance of Residual Visual Effect
VP01	**SR-28 at Raghly.**	16.4km.	E: 557849 N: 841914	Long-Term, Direct.	Neutral.	High.	Slight.	**Not Significant.**
VP02	**Knocknarea/ Queen Maeve's Tomb.**	15.6km.	E: 562501 N: 834805	Long-Term, Direct.	Neutral/ Negative.	Very High.	Negligible.	**Not Significant.**
VP03	**Aughras near SR-56.**	7.7km.	E: 550730 N: 836193	Long-Term, Direct.	Negative.	High.	Slight.	**Slight.**
VP04	**SR-53 at Garryduff.**	5.8km.	E: 549520 N: 834734	Long-Term, Direct.	Negative.	High.	Slight.	**Slight.**
VP05	**SR-70 and SR-7 at Doonycoy.**	3.8km.	E: 547171 N: 833078	Long-Term, Direct.	Negative.	High.	Moderate.	**Moderate.**
VP06	**SR-58 at Lough Easky.**	2.9km.	E: 544824 N: 823287	Long-Term, Direct.	Negative.	High.	Negligible.	**Not Significant.**
VP07	**SR-58 at Farranmacfarrell.**	2.9km.	E: 542403 N: 830961	Long-Term, Direct.	Negative.	High.	Moderate.	**Moderate.**
VP08	**SR-20 at Dromore West.**	5.2km.	E: 542751 N: 833887	Long-Term, Direct.	Negative.	High.	Slight.	**Slight.**
VP09	**SR-53 at Ballygilcash.**	5.8km.	E: 542625 N: 834526	Long-Term, Direct.	Negative.	High.	Slight.	**Slight.**

VP No.	Name	Distance to the Proposed Turbines	Grid Ref.	Duration and Type of Effect	Nature of Effect	Visual Sensitivity of Receptors	Magnitude of Visual Change	Significance of Residual Visual Effect
VP10	**SR-20 and SR-52 at Easky.**	11.1km.	E: 537818 N: 837861	Long-Term, Direct.	Neutral.	High.	Negligible.	**Not Significant.**
VP11	**SR-15 at Corimla South.**	15.7km.	E: 530006 N: 818416	Long-Term, Direct.	Negative.	High.	Slight.	**Not Significant.**
VP12	**SR-63 at Scurmore.**	15.9km.	E: 527514 N: 828144	Long-Term, Direct.	Negative.	High.	Negligible.	**Not Significant.**
VP13	**Killala Bay.**	23.9km.	E: 521231 N: 836793	Long-Term, Direct.	Neutral.	High.	Slight.	**Not Significant.**
VP14	**Doonbeakin.**	1.3km.	E: 545172 N: 830138	Long-Term, Direct.	Negative.	High.	Moderate.	**Moderate.**
VP15	**SR-58 at Crumhach.**	1.2km.	E: 543218 N: 829464	Long-Term, Direct.	Negative.	High.	Substantial.	**Moderate.**

13.7.3.2.2 Visual Effects on Designated Scenic Routes and Views

Co. Sligo SR-58

SR-58 comprises the route from Dromore West to Mullany's Cross (L-2702, L-4701 and L-4702) with views of Lough Easky and Ox Mountains. SR-58 passes directly through the Proposed Wind Farm at its western end, orientated N-S adjacent to the cluster of Proposed Turbines T1-T5. According to ZTV mapping, SR-58 shows Full and mixed theoretical visibility of the Proposed Turbines on both sides of the route. Viewpoints VP06, VP07 and VP15 (see red boxes in Figure 13-17 below) are representative of views from this scenic route within 3km of the Proposed Turbines. All three VPs are deemed to represent "High" sensitivity visual receptors, meaning users of the scenic route.

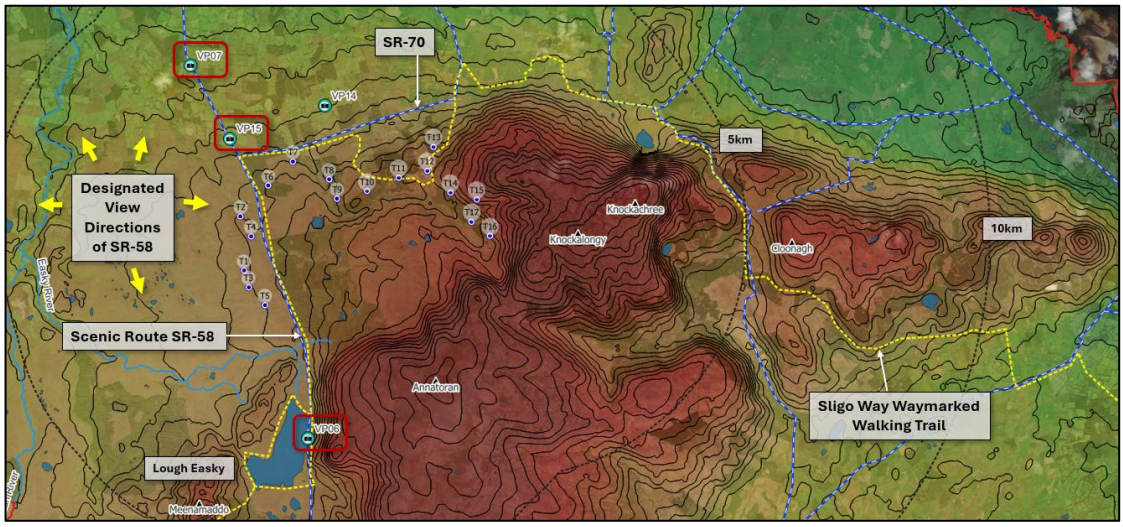


Figure 13-17: Position of Co. Sligo scenic routes SR-58 and SR-70 and Sligo Way waymarked walking trail relative to the Proposed Turbines, topography map follows the legend of Figure 13-10

It is noted that, currently, Existing Wind Farm turbines are visible from this portion of SR-58. The change in views is thereby measured in part in terms of how the Proposed Turbines will be viewed within the same landscape after the Existing Wind Farm turbines have been removed. The difference in height of the Existing Wind Farm turbines (75-100m) versus the Proposed Turbines (180m) is also considered. In addition, the primary scenic long-ranging views from this elevated vantage point are looking north and west, over coastal lowlands, facing in the opposite direction of the Proposed Turbines.

From the south of the Proposed Turbines around Lough Easky, long-ranging views are restricted by the mountainous terrain and no existing turbines, either those of the Existing Wind Farm or any other existing developments, are visible in the current views from this vantage point, as shown by VP06 in the *Photomontage Booklet*. In the "Proposed View," only the blades and hubs of the Proposed Turbines are visible within the saddle between the hills, and the magnitude of change is predicted to be "Negligible," thereby resulting in "Not Significant" visual effects from this vantage point.

From the north of the Proposed Turbines, VP07 at 2.9km distance shows that the Proposed Turbines are partially screened and are well setback beyond mature forestry and the ridgeline of mountainous terrain, with a slightly uneven height profile that suitably follows the topography of the foothills. The magnitude of change in views is predicted to be "Slight" from this vantage point, resulting in "Slight" residual visual effects. At 1.2km, VP15 illustrates that the magnitude of change in views is slightly higher, predicted to be "Moderate" owing to the difference in perceived height/scale of the Proposed Turbines from this vantage point. Closer turbines are perceived at greater scale, while farther away turbines are perceived at smaller scale and are seen to be set back beyond forestry and/or ridgelines in the mountainous terrain. The residual visual effects for VP15 are predicted to be "Moderate."

Irrespective of the current presence of turbines in the view, the magnitude of change is deemed to be "Moderate." Users of the scenic routes are by definition moving through the landscape, either walking or driving. The Proposed Turbines do introduce new and taller infrastructure into the vicinity of the routes but do not block or obstruct the intended views associated with the routes. It is considered important that the majority of wind farms in Ireland have open access during the operational period and are extensively used for amenity purposes in particular walking and cycling. While there may be a perceived degree of conflict between the Proposed Turbines and the amenity of scenic routes and walking routes, in reality there is sufficient evidence that the amenity of such routes is not materially affected by the presence of turbines for the small portion of what is, overall, an extensive network of scenic routes and walking trails which pass briefly through wind farms.

Overall, the residual visual effects at different vantage points along SR-58 within 5km from the Proposed Turbines vary from "Slight" to "Moderate" depending on the distance of receptors from the Proposed Turbines, the direction of primary views, the nature of the surrounding topography and degree of visual screening. On balance, and considering the extensive amenity use of scenic routes and walking trails within wind farm sites in general, the residual visual effects on SR-58 are predicted to be "Direct," "Long-Term" and "Neutral/Negative" with a significance rating of "Slight," which is not significant in the context of EIA.

Co. Sligo SR-70

SR-70 comprises the L-6311, L-63119, L-6309, and L-63096 local roads from the junction with L-2203 to L-6213, with views of the Atlantic Ocean, Dartry Range, Ox Mountains, and Knocknarea. SR-70 passes directly through the Proposed Wind Farm immediately north of the cluster of Proposed Turbines T6-T17, orientated E-W after traversing N-S from the townland of Doonycoy. According to ZTV mapping, SR-70 shows Full and mixed theoretical visibility along this part of the route. Viewpoint VP14 is the closest viewpoint to SR-70 in the area with the greatest potential to experience visual impacts. VP14 is located immediately north of the scenic route on the local road in Doonbeakin and is representative of views from the scenic route itself. VP14 is deemed to represent "High" sensitivity visual receptors. Figure 13-18 below shows the location of VP14 (red box) in relation to SR-70 and indicates the range of direction in designated views.

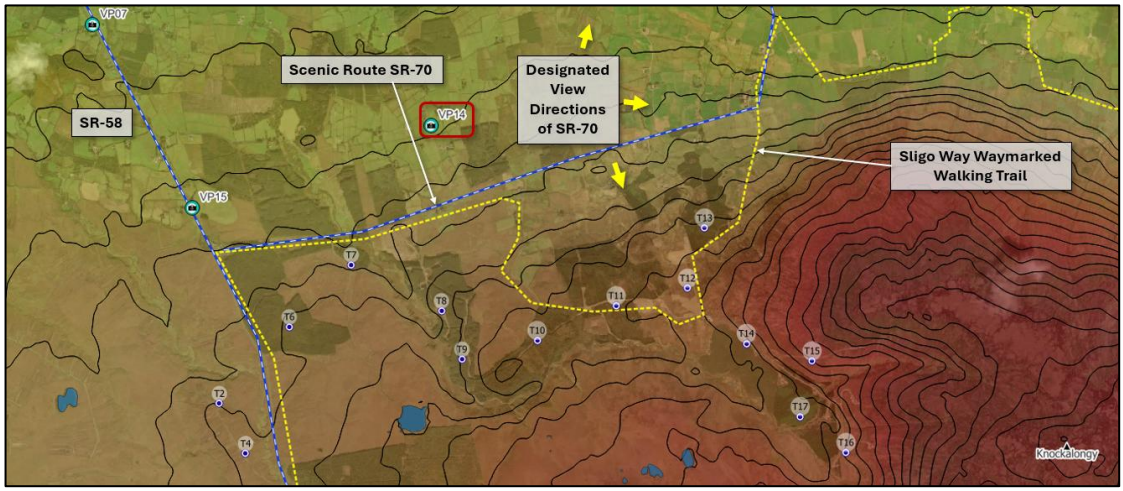


Figure 13-18: Position of VP14 and Co. Sligo scenic route SR-70 relative to the Proposed Turbines, topography map follows the legend of Figure 13-10

It is noted that, currently, Existing Wind Farm turbines are visible from this portion of SR-70. The change in views is thereby measured in part in terms of how the Proposed Turbines will be viewed within the same landscape after the Existing Wind Farm turbines have been removed.

At a distance of 1.3km, VP14 illustrates that the overall magnitude of change is "Slight" because the perceived scale of the Proposed Turbines varies with distance, with farthest turbines perceived as

somewhat modest elements relative to the scale of the landscape. In addition, the siting of Proposed Turbines around the ridgeline such that they are viewed with a clustered layout and with a slightly uneven height profile that follows the undulations in the topography of the foothills is in adherence with the siting and design guidance for Mountain Moorland landscape types in the Guidelines (DoEHLG, 2006) and the Draft Guidelines (DoHPLG. 2019). Another consideration for the low magnitude of change is that the Existing Wind Farm turbines are already visible in the current views. On balance, the residual visual effects on SR-70 are predicted to be "Direct," "Long-Term" and "Neutral/Negative" with a significance rating of "Slight," which is not significant in the context of EIA.

Co. Sligo SR-7

SR-7 comprises the N-59 from Dromore West to Beltra, with views of the Atlantic Ocean and Ox Mountains. SR-7 traverses the LVIA Study Area in E-W orientation, situated approximately 4km to 5km north of the Proposed Wind Farm. According to ZTV mapping, SR-7 shows Full and mixed theoretical visibility along the route. Viewpoint VP05 (see red box in Figure 13-19 below) represents views along this scenic route from an area of Full theoretical visibility within 5km of the Proposed Turbines.

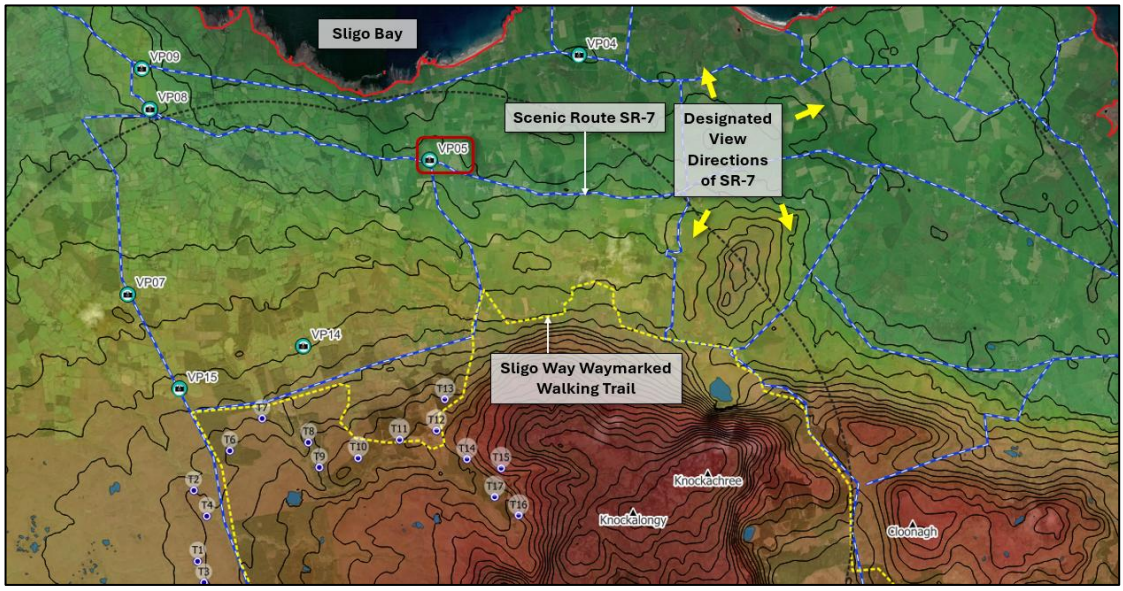


Figure 13-19: Position of VP05 and Co. Sligo scenic route SR-7 relative to the Proposed Turbines, topography map follows the legend of Figure 13-10

It is noted that, currently, Existing Wind Farm turbines are visible from locations along SR-7 with open visibility in the direction of Dunneill Mountain and Kingsmountain. The change in views is thereby measured in part in terms of how the Proposed Turbines will be viewed within the same landscape after the existing turbines have been removed. At a distance of 3.9km, VP05 illustrates that the overall magnitude of change is "Moderate" because the Proposed Turbines are visible in the landscape but are setback along the top of and beyond the ridgeline of Dunneill Mountain and some are entirely visually screened behind the mountain. Some blades and hubs are visible entirely above the horizon line and the Proposed Turbines exhibit relatively even spacing and an even height profile that follows the topography of the ridgeline. Notably, existing wind energy development (i.e the Existing Wind Farm) is already visible in the current views when looking inland. In the "Proposed View," the Proposed Turbines are seen over a wider extent of the landscape and are greater in height than the Existing Wind Farm turbines, though the overall number of turbines in the landscape is fewer. Finally, the protected views of SR-7 which look out to the north over Sligo Bay and the Atlantic Ocean are facing in the opposite direction of the Proposed Turbines. On balance, the residual visual effects on SR-7 are predicted to be "Direct," "Long-Term" and "Neutral/Negative" with a significance rating of "Moderate" which is not significant in the context of EIA.

Scenic Routes beyond 5km

Co. Sligo SR-20. SR-20 comprises the R-297 from Scurmore to Dromore West, with views of Killala Bay and the Atlantic Ocean. According to ZTV mapping, SR-20 shows Full theoretical visibility to the east of the route, which is in the opposite direction of the protected views, and limited visibility to the west. Viewpoint VP08 represents views from this scenic route at 10km from the Proposed Turbines and VP10 represents views from this scenic route beyond 15km. The sensitivity of SR-20 as a designated scenic route is deemed to be "High." Because of the greater distance to the Proposed Wind Farm, the magnitude of change in views will be low to none; this is demonstrated in the imagery of both VP08 and VP10 in the *Photomontage Booklet*, with "Slight" and "Negligible" magnitudes of change. In addition, the direction of designated views is primarily looking away from the Proposed Turbines, out towards Killala Bay and the Atlantic Ocean. On balance, the residual visual effects on SR-20 are predicted to be "Direct," "Long-Term" and "Neutral/Negative" with a significance rating of "Slight" to "Not Significant," which is not significant in the context of EIA.

Co. Sligo SR-28. SR-28 comprises the L-3203, L-3206, L-3028, L-7229 & L-3208 from junction with L-3202 (Streedagh Road) south to Raghly Head loop road, with views of Dartry Range, Knocknarea, Sligo Bay and Ox Mountains. According to ZTV mapping, SR-28 shows Partial theoretical visibility (10-14 turbines) at its closest point to the Proposed Turbines, which is located 16.4km across Sligo Bay at Raghly. Viewpoint VP01 represents views from this scenic route at 16.4km northeast from the Proposed Turbines. The sensitivity of SR-28 as a designated scenic route is deemed to be "High." Because of the substantial distance to the Proposed Wind Farm and the wide expanse of panoramic views of Sligo Bay, the magnitude of change in views will be low to none; this is demonstrated in the imagery of VP01 in the *Photomontage Booklet*, with "Slight" magnitude of change. On balance, the residual visual effects on SR-28 are predicted to be "Direct," "Long-Term" and "Neutral/Negative" with a significance rating of "Not Significant," which is not significant in the context of EIA.

Co. Sligo SR-53. SR-53 comprises the coast road from R-297 at Dromore West to N-59 at Beltra (L-2302 and L-2204), with views of Atlantic Ocean, Sligo Bay, Ballysadare Bay, Ox Mountains, Knocknarea and Ben Bulben. According to ZTV mapping, SR-53 shows Full theoretical along the route. Viewpoint VP04 represents views from this scenic route, located beyond 5km from the Proposed Turbines. The sensitivity of SR-53 as a designated scenic route is deemed to be "High." Because of the greater distance to the Proposed Wind Farm, the magnitude of change in views will be low to none; this is demonstrated in the imagery of VP04 in the *Photomontage Booklet*, with "Slight" magnitude of change. On balance, the residual visual effects on SR-53 are predicted to be "Direct," "Long-Term" and "Neutral/Negative" with a significance rating of "Slight" which is not significant in the context of EIA.

Co. Sligo SR-56. SR-56 comprises Aughris Head (L-2301 turning onto L-6301) between junctions with Beltra - Dromore West coastal road (L-2302), and features views of Knocknarea, Ben Bulben, the coast and Sligo and Donegal Bays. According to ZTV mapping, SR-56 shows Full theoretical along the route, and the Proposed Turbines are positioned in the opposite direction of the protected views. Viewpoint VP03 represents views from this scenic route beyond 7km from the Proposed Turbines. Because of the greater distance to the Proposed Wind Farm, the magnitude of change in views will be low to none; this is demonstrated in the imagery of VP03 in the *Photomontage Booklet*, with "Slight" magnitude of change. On balance, the residual visual effects on SR-53 are predicted to be "Direct," "Long-Term" and "Neutral/Negative" with a significance rating of "Slight" which is not significant in the context of EIA.

Co. Mayo SR-15. SR-15 traverses E-W from Knockasliggaun peak, through Bunnyconnellan village. According to ZTV mapping, SR-15 shows mixed theoretical along the route and the on-site visibility appraisal determined that there is potential for visibility at the western end of the route. Viewpoint VP11 is located very near the designated route and can be taken to represent views from this scenic route, from beyond 15km of the Proposed Turbines and is given a "High" sensitivity rating. From the imagery of VP11 in the *Photomontage Booklet*, it can be seen that the terrain is undulating and steep and contains existing wind turbines which are partially visible to the northeast (i.e. Carrowleagh, Cloonkeelaun and Black Lough developments). It is noted that the existing Bunnyconnellan Wind Farm is located to the southeast from this vantage point and is also partially visible within the

landscape. Views in the direction of wind energy development are intermittent owing to the nature of screening by forestry and undulating topography in the area, as the scenic route traverses up the mountainside into steeper terrain. The Proposed Turbines themselves are not visible from this vantage point, though turbines of existing and permitted turbines will be partially viewed. Considering the nature of visibility of the permitted Firlough turbines from this vantage point, in the same direction as the Proposed Turbines and other developments, the magnitude of change is deemed "Slight." On balance, the residual visual effects on SR-15 are predicted to be "Direct," "Long-Term" and "Neutral/Negative" with a significance rating of "Not Significant" which is not significant in the context of EIA.

13.7.3.2.3 *Visual Effects on Recreational Routes*

Sligo Way

The Sligo Way waymarked walking trail is an 80km route that traverses the County of Sligo in the northwest of Ireland from Lough Talt, in the Ox Mountains near the Mayo border, to the town of Dromahair in County Leitrim. Within the LVIA Study Area, most of the trail has no theoretical visibility of the Proposed Turbines (see Figure 13-20 below).

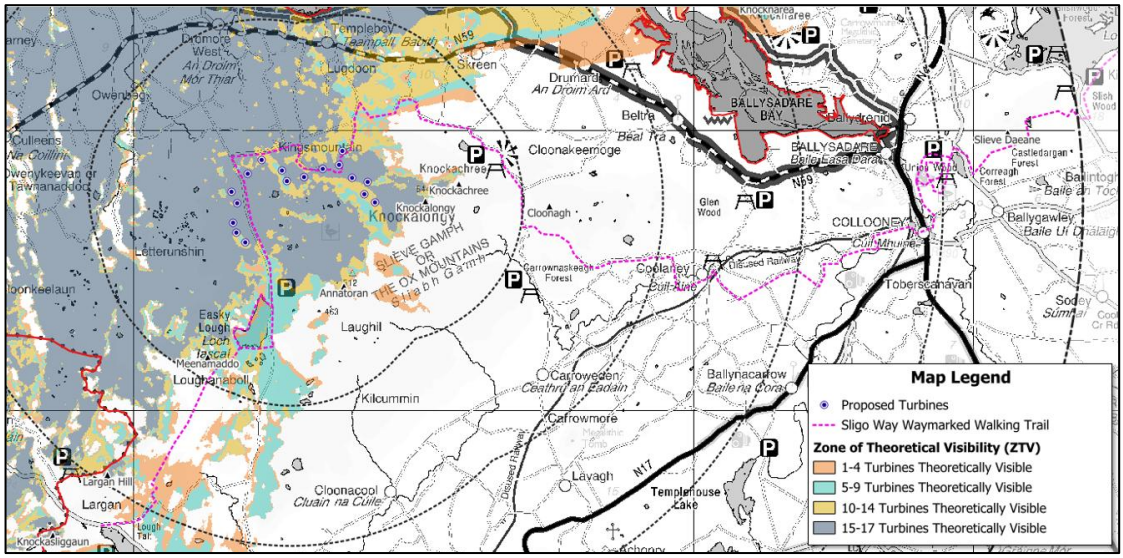


Figure 13-20: Majority of the Sligo Way in the LVIA Study Area with no visibility of the Proposed Turbines

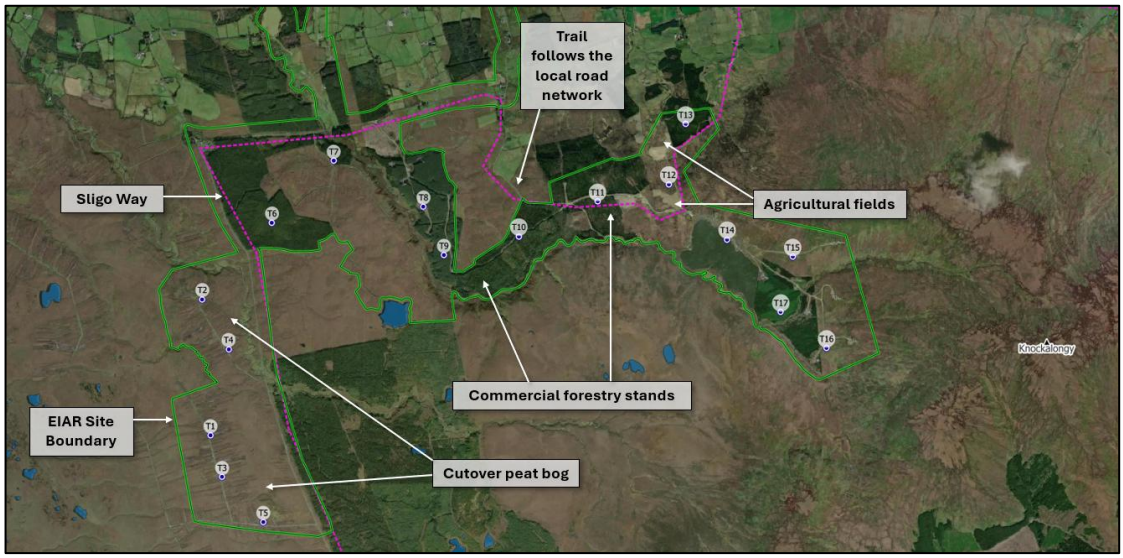


Figure 13-21: Human-modified landscape types along the Sligo Way within the Proposed Wind Farm

A small portion (approximately 7.8km length) of the Sligo Way passes directly between the Proposed Turbine clusters and follows the general layout of the Proposed Wind Farm and local road network (see Figure 13-21 above). The quality and condition of the landscape along this portion of the trail is considered in terms of the user experience of the trail from a landscape and visual perspective. Figure 13-21 shows that there are several types of human-modified landscape along this portion of the trail, including cutover peat bog, commercial forestry stands and agricultural fields. The Sligo Way follows the local road network and passes in close proximity to Proposed Turbines T4 and T5 in the west, and passes in between T10, T11, T12 and T13 in the northeast corner of the Proposed Wind Farm.

Considering the context of wind farm development becoming increasingly acceptable within sparsely populated upland landscapes, it is becoming common for walking trails to pass through wind farms, as is the case with the Sligo Way and the Proposed Project. It is noted that, currently, Existing Wind Farm turbines are visible from this same portion of the trail. Whilst trail users will be passing along the trail adjacent to the Proposed Turbine towers, the nature of the magnitude of change in views is temporal, meaning that the views are short-lived and not stationary as trail users pass through the area, and long-ranging views are available between tower structures.

Considering the wider LVIA Study Area, the majority of the Sligo Way has no visibility of the Proposed Turbines. The very small portion of the trail (approximately 7.1km or 8.8% of the total waymarked walking trail) which will experience open views of the Proposed Turbines can be described as follows. For trail users passing from the south, Proposed Turbines T1 through T5 situated to the west of the trail will be new additions within the views which are long-ranging vistas focused to the north. This part of the trail is the same part of the trail which currently experiences views of the Existing Wind Farm turbines to the east and views of existing turbines in the distance to the southwest. In a future receiving environment, the permitted Firlough turbines will also be visible in the distance to the southwest from this section of the trail. The trail currently passes adjacent to the existing water treatment plant located in the northwest corner of the Proposed Wind Farm which is visible from the road. On balance, the nature of the effect is considered “Neutral/Negative” as there will be new turbines in the view but for a very small proportion of the total trail.

In addition, the magnitude of change in views as a result of the Proposed Turbines is temporal and much of the landscape around the Sligo Way within the Proposed Wind Farm is degraded, and the primary long-ranging scenic views out towards Sligo Bay and the Atlantic Ocean are not obscured. On balance, the residual visual effects on the Sligo Way are considered to be in line with baseline trends of a project which features repowering aspects, meaning that wind energy development features are visible in both the “Do-Nothing” and “Proposed” scenarios. On balance, the residual visual effects on the Sligo Way are predicted to be “Direct,” “Long-Term” and “Neutral/Negative” with a significance rating of “Moderate,” which is not significant in the context of EIA.

Lough Easky Loop

The Lough Easky Loop is a walking route that parallels the Sligo Way where it encircles Lough Easky on lakeshore tracks, laneways and minor roads, situated in the heart of the Ox Mountain range. This portion of the trail around Lough Easky is located within 3km of the Proposed Turbines and shows Partial theoretical visibility. Viewpoint VP06 represents views from the trail and was found to have a magnitude of change in views of “Negligible.” From this vantage point, views to the north looking towards the Proposed Turbines are limited by the steep terrain and hilly topography immediately surrounding the lake. As a result, the Proposed Turbines are setback well beyond the ridge and are almost entirely visually screened by the topography. On balance, the residual visual effects on Lough Easky Loop are predicted to be “Direct,” “Long-Term” and “Neutral/Negative” with a significance rating of “Not Significant,” which is not significant in the context of EIA.

Recreational Routes and Destinations beyond 5km

Aughris Coastal Walk. Located 6km from the N59 National Road between Sligo and Ballina, the focus of scenic views from this trail is primarily looking out towards the Atlantic Ocean and across Sligo Bay as well as along the rugged coastal topography, which is in the opposite direction from the Proposed Turbines. Viewpoint VP03 represents views from the entrance of the trail, located 7.7km from the Proposed Turbines. From this vantage point, the trail leads receptors away from the location where the Proposed Turbines would be visible in the opposite direction. In addition, it is noted that, currently, Existing Wind Farm turbines are visible from this location. The Proposed Turbines will be viewed similarly and therefore the magnitude of change in views will be low. Considering these factors, on balance, the residual visual effects on Aughris Coastal Walk are predicted to be "Direct," "Long-Term" and "Neutral/Negative" with a significance rating of "Not Significant," which is not significant in the context of EIA.

Rosses Point. This headland area is the point at the entrance to Sligo Harbour from Sligo Bay, near Rosses Point Village which is a popular local coastal destination and is located 18.5km from the Proposed Turbines. According to ZTV mapping, Rosses Point shows Partial theoretical visibility (10-14 Proposed Turbines) and onsite visibility appraisal indicated limited potential for visibility. For the avoidance of doubt, VP01 captured at Raghly, slightly across the bay from Rosses Point to the northwest, has Full theoretical visibility and is considered to represent similar views. From this vantage point, the Existing Wind Farm turbines are hardly discernible owing to the substantial distance across the bay and the visual focus being the wide sweeping nature of panoramic bay views. It is also noted that, from VP01, open views of Knocknarea and Slieve Daene occur in the opposite direction of the Proposed Turbines, which could be considered the primary focus of scenic views from this vantage point and its related receptors, and this would also be the case from Rossess Point. The Proposed Turbines do not impact the open views of Knocknarea and Slieve Daeane in the opposite direction. When looking in the direction of the Proposed Turbines, the spatial extent of visible turbines is extended horizontally and their height is greater than that of the Existing Wind Farm turbines which are visible. On balance, the magnitude of change in views will be very low. Considering these factors, the residual visual effects on Rosses Point are predicted to be "Direct," "Long-Term" and "Neutral/ Negative" with a significance rating of "Not Significant," which is not significant in the context of EIA.

Kilcummin Loop Walks. The Green, Blue and Red loops of the Kilcummin Loop Walks are located near Lackan in Co. Mayo on the western shore of Killala Bay, situated greater than 20km from Proposed Turbines. Viewpoint VP13 represents open views looking eastward from the shoreline near the start of the loop walks and is classed with "High" sensitivity for the scenic amenity of the coastal area and primary views directed across the bay in the direction of the Proposed Turbines. From this vantage point, the Proposed Turbines will be visible as very modest objects in the distance and will introduce visible wind energy features into the landscape where currently none can be seen. Along with the permitted turbines, namely Firlough Wind Farm, which will also be introduced to the distant landscape to the south, the horizontal extent of visible turbines across the panoramic view will be fairly wide, albeit the turbine features are perceived at great distance. The overall visual focus from this vantage point is the wide sweeping nature of panoramic ocean views and the visual focus of the Kilcummin Loop Walks themselves will also include localised short-range views within the trail system; therefore, the magnitude of change is deemed "Slight." Considering these factors, on balance, the residual visual effects on Kilcummin Loop Walks are predicted to be "Direct," "Long-Term" and "Neutral/Negative" with a significance rating of "Not Significant," which is not significant in the context of EIA.

13.7.3.2.4 *Visual Effects on Cultural Heritage and Tourist Destinations*

Cooper's Lodge

Cooper's Lodge is the ruins of an 1830's hunting lodge with local cultural heritage value that sits within the boundary of the Proposed Wind Farm. This site is not a recorded national monument and is not

considered a popular tourist destination, as it is relatively unknown except to locals. The Proposed Turbines are visible to the north and southwest. It is to be anticipated that the Proposed Turbines will inevitably cause "Significant" visual effects on Cooper's Lodge with respect to LVIA, considering the "Substantial" magnitude of change which will arise and the fact that they are sited in close proximity to the lodge on multiples sides and are therefore visible from the lodge in multiple directions. The residual visual effects on Cooper's Lodge are predicted to be "Direct," "Long-Term" and "Neutral/Negative" with a significance rating of "Significant," which is significant in the context of EIA. The number of receptors predicted to experience these effects is low.

Wild Atlantic Way

The Wild Atlantic Way is a popular tourist driving route along the Irish west coast from the Inishowen Peninsula in the north down to the town of Kinsale, County Cork, in the south and features multiple "Discovery Points" along its route which are promoted as points of interest. The Wild Atlantic Way is not a designated protected route in any policy at local, regional or national levels; however, it is considered in this case as a local visual receptor from an LVIA perspective. Five viewpoints in this LVIA were captured on the Wild Atlantic Way, the closest being VP05, located 3.8km from the Proposed Turbines in an area of Full theoretical visibility, which was found to have a residual visual effect of "Moderate." Beyond 5-10km, VP08, VP09 and VP10 are all located in areas with Full theoretical visibility and were found to have residual visual effects ranging from "Not Significant" to "Slight." VP12 represents views from the west at greater than 15km and was found to have residual visual effects of "Not Significant." Importantly, the primary tourism value of the Wild Atlantic Way is considered its views looking out over the Atlantic Ocean from the road network following coastline, while the Proposed Turbines are located inland in the opposite direction from scenic ocean views at all of the above VPs. Therefore, the overall visual impact to the portion of the Wild Atlantic Way which passes through the LVIA Study Area is predicted to be "Direct," "Long-Term" and "Neutral/Negative" with a significance rating of "Not Significant" which is not significant in the context of EIA.

13.7.3.2.5 *Visual Effects on Dromore West Village, Co. Sligo*

Dromore West is classified as a Service Village in the SCDP 2023-2030, situated 5.2km from the nearest proposed turbine to the northwest of the Proposed Wind Farm. According to ZTV mapping, Dromore West village has Full theoretical visibility and the onsite visibility appraisal found there is potential visibility from the outskirts of the village. Viewpoint VP08 was captured within the centre of village where scenic route SR-20 passes through the settlement and was given a "High" sensitivity rating owing to its designation of scenic views in the SCDP 2023-2030. From within the village, the Proposed Turbines are partially visible with some turbines visually screened, setback beyond housing blocks and along the distant foothills. From this distance, the Proposed Turbines exhibit relatively even spacing and an even height profile and are perceived as modest elements relative to the landscape and do not raise the skyline of visible elements. In addition, Existing Wind Farm turbines are currently within the same views. As a result, the magnitude of change in views is deemed "Slight." The residual visual effects on Dromore West are predicted to be "Direct," "Long-Term" and "Neutral/Negative" with a significance rating of "Slight," which is not significant in the context of EIA.

13.7.3.2.6 *Visual Effects on N59 National Road*

The N59 National Road traverses the northern part of the LVIA Study Area in an east-west orientation and approximately 8.5km of the route passes within 5km of the Proposed Turbines. This stretch of the N59 shows mixed theoretical visibility of the Proposed Turbines according to ZTV mapping, Partial (10-14 turbines) in the east and Full (15-17 turbines) in the west. The onsite visibility appraisal showed that there is potential for visibility of the Proposed Turbines in a journey scenario that would be intermittent and transitory along the route. This portion of the N59 aligns with Co. Sligo designated scenic route SR-7, which is discussed above in Section 13.7.3.2.2. VP05 was captured from the N59 in a location of Full theoretical visibility and was found to have a residual visual effect of "Moderate." Outside 5km of the Proposed Turbines, the visual effects are likely to be of much lesser impact and

may be “Imperceptible” from most parts of the route within the study area. The residual visual effects on N59 are therefore predicted to be “Direct,” “Long-Term” and “Neutral/Negative” with a significance rating ranging from “Imperceptible” to “Moderate,” which is not significant in the context of EIA.

13.7.3.2.7 Visual Effects on Sligo Passage Tomb Landscape Features

Carns Passage Tomb. Scoped out – no theoretical visibility. This feature is located >20km from the Proposed Turbines, located east of Sligo Town.

Carrowmore Megalithic Cemetery. Scoped out – no theoretical visibility. This feature is located >15km from the Proposed Turbines, located west of Sligo Town.

Queen Maeve Trail. This trail follows a sustained climb from Strandhill to the summit of Knocknarea hill where Queen Maeve’s Tomb is located, within the Sligo Passage Tomb Landscape at its western end. Viewpoint VP02 represents views from the highest point of the trail, on Knocknarea Mountain, located 15.6km from the Proposed Turbines and was found to have a residual visual effect of “Not Significant.” VP02 is discussed in detail below, with respect to Queen Maeve’s Tomb.

Queen Maeve’s Tomb. The Queen Maeve’s Tomb historical site sits atop the nationally renowned Knocknarea hill in Knocknarea North townland, Co. Sligo (see Plate 13-8 below), overlooking expansive, panoramic views of Sligo Bay and the mountainous terrain of the Ox Mountains range, with the Atlantic Ocean to the north.



Plate 13-8: Queen Maeve’s Tomb atop Knocknarea in the Sligo Passage Tomb Landscape, looking west

Queen Maeve’s Tomb is located 15.6km from the Proposed Wind Farm and is a nationally renowned popular tourist destination with high historical, cultural and archaeological value. In this LVIA, views from the historic site itself (VP02) are considered “Very High” sensitivity, as the site is a destination for visitors to come and experience the landscape views and historical landscape setting as well as appreciate the cultural and archaeological significance of the site. Owing to the position of the Proposed Turbines on the western aspect of the Ox Mountains foothills and the position of Knocknarea approximately 15km to the east of the Proposed Wind Farm on the other side of the Ox Mountains (to the east), views from the wider landscape setting in the east of the Ox Mountains looking up towards Knocknarea and Queen Maeve’s Tomb will not be impacted by the Proposed Turbines.

The assessment in *Appendix 13-2* determined that, in views from Queen Maeve’s Tomb, only 2 no. Proposed Turbines are likely to be partially visible at the northernmost edge of the Ox Mountains range, where the terrain descends steeply into the coastal lowlands of northern Sligo. A small number of blades and blade tips of additional Proposed Turbines may be visible above the ridgeline of the terrain but are not likely to be discernible without the aid of magnification at this distance. Figure 13-22 below highlights the partially visible Proposed Turbines and shows an enlargement (image magnification ×200%) of the photomontage imagery extracted from VP02 in the *Photomontage Booklet*.

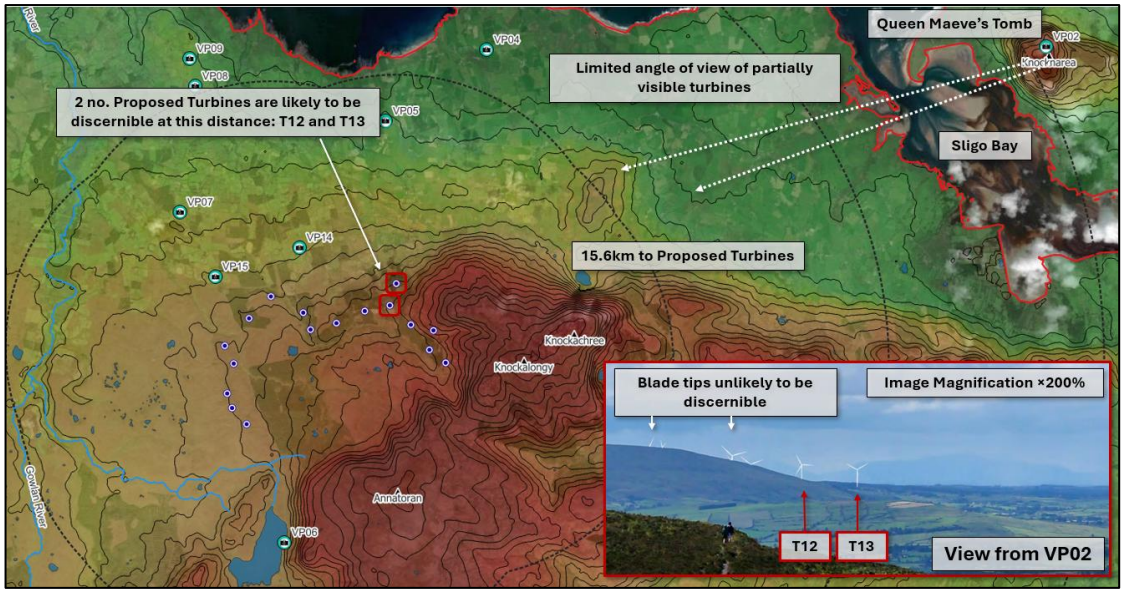


Figure 13-22: Proposed Turbines are mostly screened from view or not discernible from Queen Maeve's Tomb, topography map follows the legend of Figure 13-10

Overall, the Proposed Turbines are perceived at very modest scale relative to the landscape and are seen in the distant background of views and do not obstruct any scenic views of Sligo Bay, the Ox Mountains or the Atlantic Ocean. From this vantage point, the Proposed Turbines are barely discernible within the wide, sweeping, panoramic view setting. The Proposed Turbines are set back in the far distance beyond the Ox Mountain range and 9 no. are not visible for being fully visually screened by the terrain. The few Proposed Turbines which are partially visible are hardly discernible at this distance and are therefore effectively accommodated in the long-ranging and expansive panoramic views. As a result, the magnitude of change in views is deemed "Negligible" meaning that the composition and character of the existing view is substantially unaltered, approximating to little or no change, and the nature of the effect is "Neutral/Negative." On balance, the residual visual effects on Queen Maeve's Tomb and the Sligo Passage Tomb Landscape are predicted to be "Direct," "Long-Term" and "Neutral/Negative" with a significance rating of "Not Significant" which is not significant in the context of EIA.

13.7.3.2.8 Visual Effects of the Onsite 110kV Substation



Figure 13-23: Extraction of VP15 imagery showing the "Proposed View" in the direction of the proposed substation location

The proposed onsite 110kV substation is located within a tract of commercial forestry and therefore the potential visibility of this infrastructure will be limited to none as the infrastructure will be surrounded by mature trees. Figure 13-23 above shows views looking towards the forestry stand where the infrastructure is to be sited, from the north. Considering that the site of the proposed substation is a degraded landscape of commercial forestry, and that the infrastructure will be surrounded by mature trees thereby limiting or eliminating potential visibility of the infrastructure, the landscape and visual effects are predicted to be "Not Significant," which is not significant in the context of EIA. In this case,

the duration of effects is "Permanent," as the proposed substation is planned as a permanent structure. The residual visual effects arising as a result of the proposed onsite 110kV substation are therefore predicted to be "Direct," "Permanent" and "Neutral" with a significance rating of "Not Significant," which is not significant in the context of EIA.

13.7.3.2.9 Visual Effects on Local Residential Receptors

The Proposed Wind Farm is located in a sparsely populated marginal upland landscape, well set-back from large population centres and most receptors protected in local planning policy. During the site selection process, early stage LVIA appraisals identified local residential receptors as having potential to be adversely impacted by the Proposed Turbines with regard to visual impacts. Consequently, visual impact assessment on local residential receptors was considered during site selection and throughout the iterative design process for the Proposed Project.

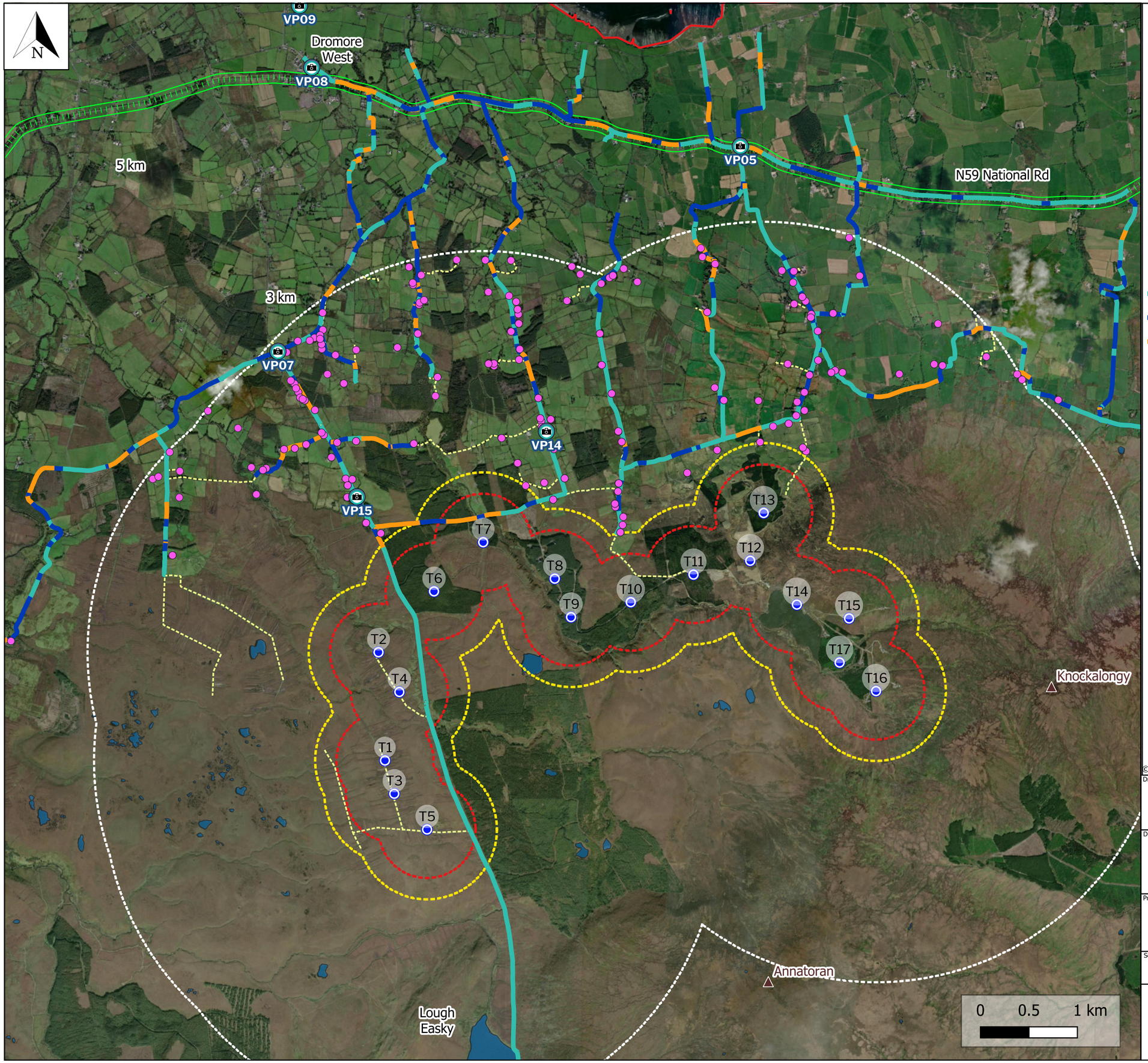
This LVIA determined that receptors beyond 3km of the Proposed Turbines will have very limited visibility of the Proposed Turbines. Therefore, the assessment of visual effects on local residential receptors focuses on receptors within 3km of the Proposed Turbines. The assessment uses analysis of aerial maps and photomontages with the intention of identifying the theoretical precautionary scenario for potential visual effects on residential receptors. As detailed in Chapter 5: Population and Human Health, the landscape surrounding the Proposed Wind Farm has a considerably low population density (see Table 5.2 in Chapter 5); therefore, the predicted visual effects discussed below would be experienced by a very low number of receptors.

The baseline study determined that local residential receptors with the greatest potential for visual effects are concentrated primarily in two areas relative to the position of the Proposed Turbines:

- Local receptors to the North (townlands of Dunowla, Doonbeakin),
- Local receptors to the Northwest (townlands of Crumhach, Farranmacfarrell, Belville).

Viewpoints VP07, VP14 and VP15 were captured on local roads near the Proposed Wind Farm and represent these areas. The viewpoints are assessed in detail in *Appendix 13-2: Viewpoint Assessment Tables*. The viewpoints were specifically selected to assess the visual effects on local receptors in close proximity to the Proposed Turbines and represent "High" sensitivity viewpoints. These viewpoints, as part of the total 15 no. photomontage viewpoint locations selected for the LVIA, are sufficient to represent the residential receptors within the LVIA Study Area, including the *"distribution of population"* (para 6.18, GLVIA3).

Figure 13-24 below maps all residential dwellings within 3km of the Proposed Turbines and indicates the minimum setback distances according to the Guidelines (DoEHLG, 2006) and the Draft Guidelines (DoHPLG. 2019). It can be seen that all local receptors are generally concentrated north of the Proposed Wind Farm, and no dwellings are located immediately to the east, south or west of the Proposed Wind Farm. The map overlays the RSA results previously presented in Section 13.3.5, to show the visual screening classes recorded on site.



Map Legend

- Ireland County Boundaries
- 4×Tip Height (720m, DoHPLG 2019 WEDGs)
- 500m Buffer (DoEHLG 2006 WEDGs)
- Proposed Turbines
- Dwellings to 3km
- Photomontage Viewpoints
- Local Roads to 3km
- N59 National Road

Route Screening Analysis (RSA) Categories

- Class 1 - Little/No Screening
- Class 2 - Intermittent/Partial Screening
- Class 3 - Dense/Full Screening

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Drawing No.

Figure 13-24

Drawing Title

Visibility Appraisal of Local Residential Receptors

Project Title

Crumhach Wind Farm, Co. Sligo

Scale	Project No.	Date	Drawn By	Checked By
1:40,000	230841	2026.06.11	RS	MW

Receptors to the North: Dunowla, Doonbeakin

Photomontage VP14 is located 1.3km north of the nearest Proposed Turbine (T7) and represents views looking inland from the local road network in the mountainous upland terrain immediately north of the Proposed Wind Farm. Local residential receptors in this area are located primarily in the townlands of Dunowla and Doonbeakin and VP14 is representative of views from these areas. The landcover in these areas comprises a modified working landscape with large tracts of mature commercial forestry amongst agricultural fields which slope up the foothills towards the ridgelines of Dunneill Mountain and Kingsmountain. Currently, turbines of the Existing Wind Farm are partially and fully visible within the landscape.

The ZTV Map indicates primarily Full theoretical visibility of the Proposed Turbines from the road network. The RSA results show a mix of mostly "Little/No" visual screening along the local road network in these areas, with small patches of "Dense/Full" and "Intermediate/Partial" visual screening. The assessment in *Appendix 13-2: Viewpoint Assessment Tables* indicates that from this vantage point, several of the Proposed Turbines are visible across the ridgeline in the distance, with some turbines being setback within commercial forestry and others set within the moorland. In the "Proposed View," the Proposed Turbines occupy a wider spatial extent than what is currently occupied by the Existing Wind Farm turbines in the "Existing View" and the Proposed Turbines are of taller height. However, the overall number of turbines in the landscape is reduced. All Proposed Turbines are setback beyond the agricultural fields in the view, and some are setback beyond the ridgeline, and several are entirely visually screened within the enclosure of Kingsmountain terrain. The perceived scale of the Proposed Turbines varies with distance, with the closest turbines perceived as being of larger scale and the farthest turbines perceived as more modest elements. Some of the Proposed Turbine blades and hubs fully are visible above the horizon. Proposed Turbines T17 and T16 to the east are entirely visually screened within the enclosure of Kingsmountain terrain and Proposed Turbines T5, T3 and T1 to the west are entirely visually screened from view behind mature trees or because they are set back beyond the steep ridgeline and are arranged in a linear layout which diminishes in perceived height and scale with increased distance from this position. Proposed Turbines T10, T9, T8, T7 and T6 will be fully visible and perceived at the greatest scale, albeit set back beyond the terrain from this position. The Proposed Turbines exhibit a clustered layout and spacing pattern with slightly uneven height profile that follows the undulations in the topography of the foothills and aligns with siting and design guidance in the Guidelines (DoEHLG, 2006) and the Draft Guidelines (DoHPLG, 2019). In addition, several of the Existing Wind Farm turbines are currently within the same views. As a result, the magnitude of change in views is deemed to be "Moderate." The residual visual effects on local residential receptors to the north are therefore predicted to be "Direct," "Long-Term" and "Negative" with a significance rating of "Moderate," which is not significant in the context of EIA.

Receptors to the Northwest: Crumhach, Farranmacfarrell, Belville

Photomontage VP15 is located 1.2km northwest of the Proposed Turbines and photomontage VP07 is located 2.9km to the northwest along the same road network. Both viewpoints represent views from the local road network northwest of the Proposed Wind Farm on the broadening moorlands of the northwestern Ox Mountains range, with one viewpoint in closer proximity and one in moderate proximity to show the difference in visual impact. The landcover of these areas is primarily a modified working landscape of agricultural fields and the terrain is steeply undulating as it sweeps upwards towards the ridgeline of Dunneill Mountain. The ZTV Map indicates Full theoretical visibility of the Proposed Turbines from the local road network around VP15 and VP07. The RSA results show an even mix of "Little/No" visual screening and either "Dense/Full" or "Intermediate/Partial" visual screening.

For VP15, the assessment in *Appendix 13-2* indicates that at the shorter range of 1.2km, the Proposed Turbines are partially visible, with some being setback beyond the agricultural fields and ridgeline of the foothills, and a few turbines are positioned on closer foothills. The perceived scale of the Proposed

Turbines varies with distance, with the closest turbines perceived as being of larger scale and the farthest turbines perceived as modest elements. Some of the Proposed Turbine blades and hubs are fully visible above the horizon. Most of the Proposed Turbines are partially visually screened from view behind the terrain or behind intervening vegetation. From this vantagepoint, the Proposed Turbines exhibit a slightly clustered spacing pattern and slightly uneven height profile that follows the undulations in the topography of the foothills.

For VP07, the assessment in *Appendix 13-2* indicates that at the moderate range of 2.9km, the Proposed Turbines are partially visible at a smaller perceived scale than at VP15 and are setback beyond the agricultural fields and along the foothills. Several turbine blades and hubs are fully visible above the horizon. Proposed Turbines T1 through T5 are entirely visually screened from view behind mature vegetation at the right of the image. From this vantagepoint, the Proposed Turbines exhibit a slightly clustered spacing pattern and slightly uneven height profile that follows the undulations in the topography of the foothills.

Importantly, for all views from the northwest within 3km of the Proposed Turbines, existing turbines are currently within the same views. Overall, from the northwest, the aesthetics of the wind farm design align with the recommendations for the Mountain Moorland landscape type in the Guidelines (DoEHLG, 2006) and the Draft Guidelines (DoHPLG. 2019) and the Proposed Turbines are generally partially or fully screened and are set back within the landscape. The magnitude of change in views from the northwest is predicted to vary between "Moderate" (for VP07) and "Substantial" (for VP15). This is owing to the wider extent of visible turbines which are brought closer to the viewpoints in comparison to the position of existing wind turbines in the baseline landscape. Some of the Proposed Turbines, particularly T6 and T7 from the vantage point of VP15, are perceived at large scale. At the same time, other Proposed Turbines, particularly T1-T5 in the west and T11 through T17 in the east from the vantage point of VP15, are seen as diminishing in perceived height and scale with increasing distance from the viewpoint. From vantage points at moderate distance around 3km such as VP07, the residual visual effects are predicted to be "Moderate," whereas from closer vantage points such as VP15, the residual visual effects may have a greater perceived magnitude of change but on balance will also be "Moderate." The residual visual effects on local residential receptors to the northwest are therefore predicted to be "Direct," "Long-Term" and "Negative" with a significance rating of "Moderate," which is not significant in the context of EIA.

13.7.3.2.10 Assessment of Turbine Range Envelope

The photomontage impact assessment tables for viewpoints VP14 Doonbeakin and VP15 SR-58 at Crumhach in *Appendix 13-2: Viewpoint Assessment Tables* include an additional section labelled "*Turbine Envelope Range*." This section includes an analysis of the photomontages and the difference in the visual effects due to the different turbine models used: Scenario 2 Median and Scenario 3 Minimum. For both viewpoints, the visual difference can only be discerned with the aid of the comparative wireline; please refer to *Appendix 13-1: LVIA Methodology* for the specific measurements of the scenarios which were assessed.

The visual difference arising between the scenarios is not significantly noticeable from the views in VP14 and VP15, even with the use of the comparative wireline. For both viewpoints VP14 and VP15, the difference in magnitude of change arising from the use of different turbine models is negligible. As demonstrated by the turbine ranges presented in the *Photomontage Booklet*, irrespective of which combination of tip height, hub height and rotor diameter within the proposed range outlined in this application is installed on site, the significance of residual landscape and visual effects will not be altered.

13.7.4 Cumulative Landscape and Visual Effects

The assessment of cumulative landscape and visual effects must be proportional, meaning that the focus of the assessment is on the extent to which the Proposed Project contributes toward cumulative effects

on the particular receptors under assessment; these contributions are clearly explained in the narrative on cumulative impact assessment. The assessment in this section focuses on cumulative impacts with other wind energy developments within the LVIA Study Area.

13.7.4.1.1 Cumulative Landscape Effects during Operation

The landscape of the Proposed Wind Farm is a modified working landscape of cutover peat bog, commercial forestry and agricultural fields amongst mountain moorland terrain. The landscape surrounding the Proposed Wind Farm is sparsely populated and virtually uninhabited to the south, where the steep terrain rises to meet foothills on the northwestern aspect of the Ox Mountains range. The closest cumulative development to the Proposed Wind Farm is the existing Black Lough Wind Farm located 4.4km to the southwest of the closest Proposed Turbine, sited in a lower elevation river valley between the Easky and Gowlan Rivers which constitutes a separate landscape from that of the Proposed Wind Farm.

Figure 13-25 below shows an aerial image of the Black Lough Wind Farm location relative to the nearest Proposed Turbines (T1, T3, and T5) and illustrates the separate landscape types according to the visible land covers in the image. It can be seen that the Proposed Turbines are set within cutover peat bog of the upland foothills, while the Black Lough Wind Farm turbines are set within agricultural fields in the lower elevation river valley near the confluence of the Easky and Gowlan Rivers. Between the two wind energy developments, there is a region of gently sloping uninhabited bog landscape, as evident by the numerous water bodies and stream network. No roads access this area. Therefore, there will be no direct material alteration of the landscape from a cumulative perspective, and no cumulative landscape effects in the context of EIAR.

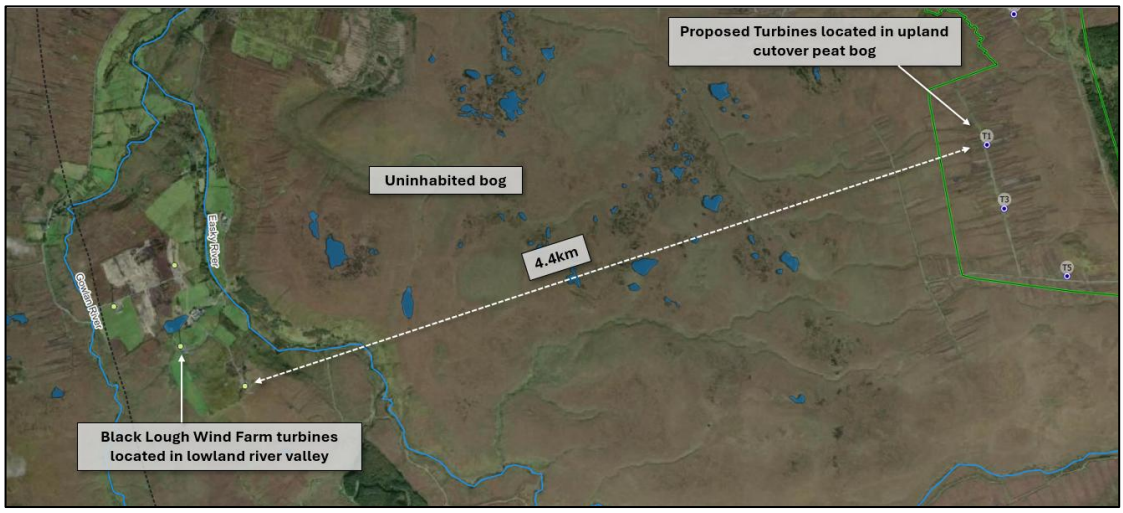


Figure 13-25: Separate landscapes between the Proposed Turbines and the closest cumulative development to the west of the Proposed Wind Farm

13.7.4.1.2 Cumulative Visual Effects during Operation

As shown previously in Figure 13-25, the closest cumulative wind energy development to the Proposed Turbines is the existing Black Lough Wind Farm 4.4km to the southwest. The number of receptors is extremely low and the road network is limited in this area; moreover, the dwellings in the area are situated within steep river valleys with no theoretical visibility, see below in Figure 13-26, with dwellings marked as purple points and the local road network shown as yellow lines.

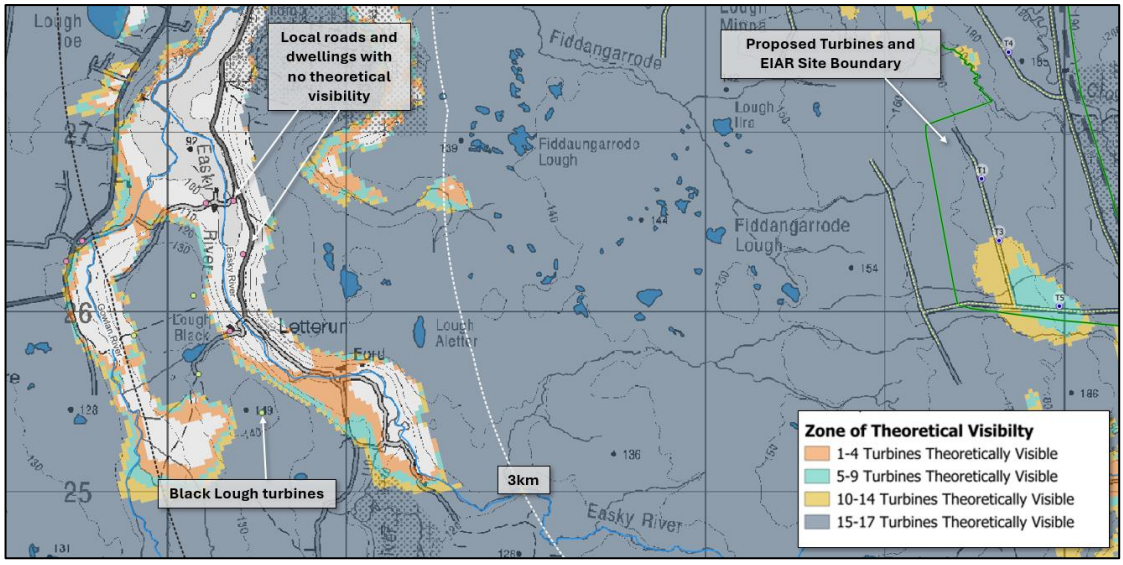


Figure 13-26: Receptors and local road network around Black Lough Wind Farm have no theoretical visibility of the Proposed Turbines

Between 4.4km and 10km, also to the southwest, a number of other permitted and existing developments are located primarily within uninhabited areas of cutover peat bog, and can be seen in the wireline imagery of VP11, which is located near the western tip of Co. Mayo designated scenic route SR-15, in an area with "Full" theoretical visibility of the Proposed Turbines.

VP11 and the Proposed Turbines are separated by a distance of 15.7km, as shown below in Figure 13-27. Whilst the ZTV Map indicates "Full" theoretical visibility (see inset of the figure), in reality the Proposed Turbines will not be visible from this vantage point, this is explained below.

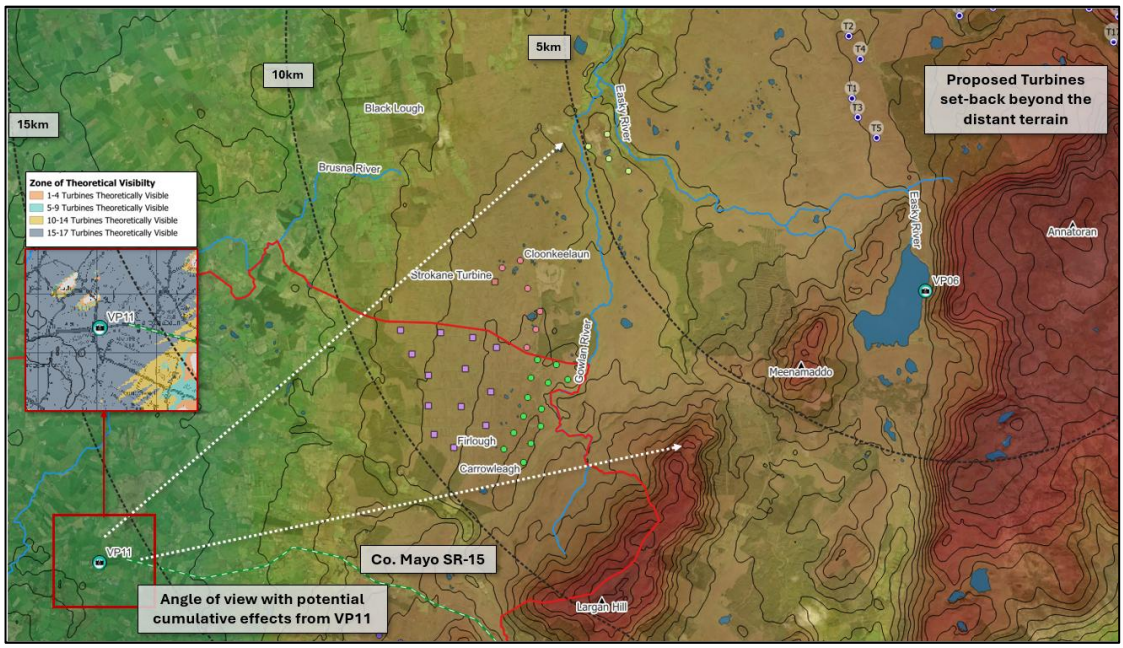


Figure 13-27: Viewpoint location in the southwest with the greatest potential for cumulative visual effects, topography map follows the legend of Figure 13-10

The Proposed Turbines are visible in the wireline imagery of VP11 but as shown in the photomontage they are set back well beyond the distant terrain and the visible blade tips will be screened behind terrain, vegetation and other above-ground features. In the existing baseline view of VP11, looking northeast towards the Ox Mountains, the existing turbines of Carrowleagh Wind Farm are visible. The existing Bunnyconnellan Wind Farm is located to the southeast of the viewpoint location, situated on

the higher slopes of the mountain foothills, and will also be visible from this vantage point. In the proposed view, the permitted Firlough Wind Farm is visible along the ridgeline in the midground, with its turbines being the most prominent in terms of perceived height and scale. However, the Proposed Turbines will not be visible and the nature of visibility of wind energy developments in the area will be intermittent owing to the steep, undulating terrain and nature of forestry throughout the area. On balance, the Proposed Turbines are not likely to contribute significantly to cumulative effects from this vantage point.

Cumulative Effects on Sligo Passage Tomb Landscape

There will be no cumulative effects on the Sligo Tomb Landscape as a result of the Proposed Project; this is explained as follows. From the vantage point of VP02, no permitted or proposed wind energy developments will be visible. 2 no. existing wind energy developments are visible in the Proposed View wireline imagery of VP02; these are Killala Wind Farm and Lackan Wind Farm (see Figure 13-28 below). However, these developments are not visibly discernible at this distance. The Proposed Turbines are therefore considered a stand-alone development within the landscape and will have no contribution to cumulative visual effects on the Sligo Passage Tomb Landscape.

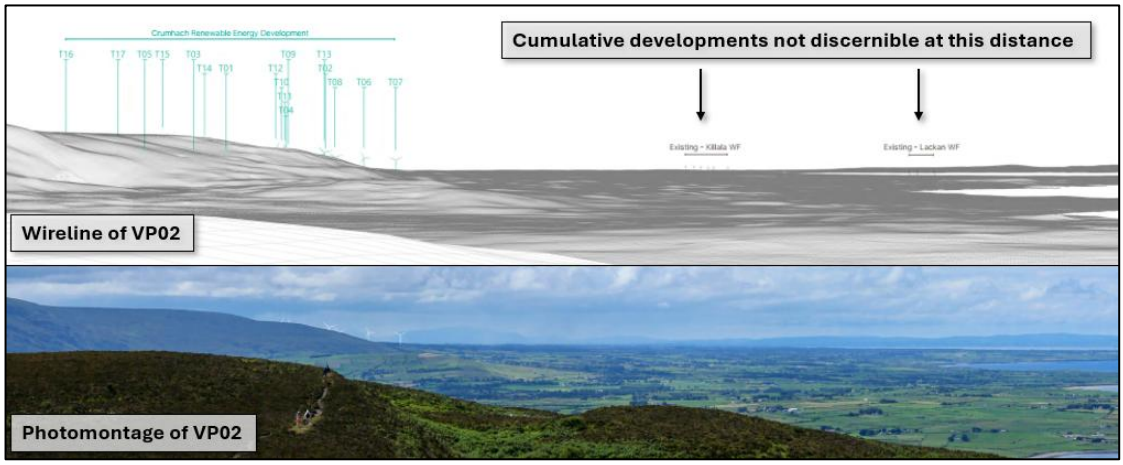


Figure 13-28 Extracted wireline and imagery from the EIAR Volume 2 Photomontage Booklet showing no cumulative effects on Sligo Passage Tomb Landscape

13.7.5 Decommissioning Phase Effects

The landscape and visual effects during the Decommissioning Phase are anticipated to be of a similar nature as those occurring during the Construction Phase.

The important element of decommissioning from an LVIA perspective is the dismantling and removal of the Proposed Turbines. This will occur for a limited period of time and will predominately involve the placement of cranes adjacent to the Proposed Turbines during the dismantling process. Upon decommissioning of the Proposed Wind Farm, the Proposed Turbines will be disassembled in reverse order to how they were erected. The Proposed Turbines will be disassembled with a similar model of crane that was used for their erection. The Proposed Turbines will likely be removed from the Proposed Wind Farm using the same transport methodology adopted initially for delivery.

Turbine foundations/handstand would remain in place underground and would be covered with earth and reseeded as appropriate. This naturalisation process shall revert the landscape of the Proposed Wind Farm back to a condition similar to the current landscape baseline.

Removal of the Proposed Turbines and ancillary infrastructure (except the proposed onsite 110kV substation and access tracks) from the Proposed Wind Farm during decommissioning will result in "Direct," "Short-Term," and "Negative" visual effects with a significance rating of "Slight," which is not significant in the context of EIA. The residual landscape and visual effects associated with the

underground Proposed Grid Connection Route are reported above as “Imperceptible” owing to the connection route being underground. A “Decommissioning Plan” has been prepared (Appendix 4-6 of this EIAR), the details of which will be agreed upon with the Local Authority prior to any decommissioning. The Decommissioning Plan will be updated prior to the end of the operational period in line with decommissioning methodologies that may exist at the time and will be agreed upon with the competent authority at that time.

13.8 Conclusion

The Proposed Project is an appropriately designed development, sited in a modified working landscape of low population density within upland terrain of cutover peatbog, commercial forestry and agricultural fields, deemed capable of accommodating wind energy development. The Proposed Turbines are viewed within a landscape where wind energy is well established and has been acceptably accommodated in the landscape of the site and turbines will exist in both an "Existing" and "Do-Nothing" Scenario until the Existing Wind Farm turbines are decommissioned. Where possible, the Proposed Project makes use of the Existing Wind Farm infrastructure, thereby reducing the requirement for new internal site access tracks or hardstand areas and reducing the extent of direct landscape effects on the site.

The Proposed Turbines are sited strategically within a landscape capable of accommodating a wind energy development of this scale. The Proposed Wind Farm is an area surrounded by substantial topographical features which both eliminate visibility of the Proposed Turbines from a large portion of the LVIA Study Area and provide a sense of scale that causes the Proposed Turbines to be perceived as congruous and appropriately scaled in the landscape type within which they are viewed.

In terms of local visual amenity, the Proposed Project exceeds the recommended 500m setback from residences set out in the Guidelines (DoELHG, 2006) and adheres to the prescribed 4-times-tip-height (720m) setback distance for residential visual amenity in the Draft Guidelines (DoHPLG, 2019). Local residential receptors in close proximity to the site (within 3km) are concentrated to the north and northwest of the Proposed Turbines and were assessed using photomontage viewpoint impact assessment. The visual effects were deemed "Slight" owing to the setback distance and good visual aesthetics of turbines within a landscape already established with wind energy.

The Proposed Turbines are sited at lower elevations of the steep mountainside within an appropriate spatial extent for the broad landscape and with regular staggered spacing in a mix of random and clustered layout of slightly uneven height profile that follows the rugged topography, thereby aligning with best practice siting and design for wind energy developments in Mountain Moorland landscapes in the the Guidelines (DoEHLG, 2006) and the Draft Guidelines (DoHPLG, 2019).

This LVIA assessed the likely significant effects of the Proposed Project on key sensitive landscape and visual receptors. Effects on the landscape of the Proposed Wind Farm will be "Moderate" owing to the direct material alteration within a site itself that is degraded and already used in part for established wind energy. Landscape and visual effects on the ridgeline designated in the SCDP 2023-2030 as a "Visually Vulnerable Area" will be "Not Significant" given the context of wind turbines becoming a more familiar and accepted component of the Irish landscape over time, and the good aesthetics of siting turbines on ridges in Mountain Moorland landscapes according to best practice siting and design of wind energy developments. No landscape effects will be significant in the context of EIA.

15 no. viewpoints covering a good geographical spread of the LVIA Study Area, showing that residual visual effects range from "Not Significant" to "Moderate" with most visual effects being "Slight" or "Not Significant." No visual effects as shown in the photomontages will be significant in the context of EIA.

Visual effects on designated scenic route SR-58 and the Sligo Way waymarked walking trail which passes through the site will be "Slight" and "Moderate" respectively. The majority of wind farms in Ireland have open access during the operational period and are extensively used for amenity purposes in particular walking and cycling. Users of the scenic routes are by definition moving through the landscape, either walking, driving or cycling. There is sufficient evidence that the amenity of recreational routes is not materially affected by the presence of wind turbines for the small portion of what is, overall, an extensive network of scenic routes and walking trails which pass briefly through wind farms throughout the country.

There will be no significant cumulative effects between the Proposed Project and other wind energy developments within 25km of the site, owing to the lack of visual connection and sparse nature of developments. There will be no significant visual effects on the Sligo Passage Tomb Landscape which falls within the northeast edge of the LVIA Study Area.

Overall, there will be no significant landscape or visual effects as a result of the Proposed Project. The presence of wind turbines in the rural landscape of Ireland is consistent with evolving national climate policy and the changing character of Ireland's working landscapes. The focus for the LVIA of the Proposed Project was on a combination of distance, arrangement, and location of turbines as well as potential disruption to key scenic sensitivities, rather than simply on whether turbines are visible or not from a particular vantage point. The outcome of the LVIA, with regards to the EPA (2022) definition of significance, is calibrated in the overall context of LVIA of wind energy developments in Ireland as well as what is acceptable in the context of emerging baseline trends and the acceptability of wind turbines within views as a result of national policy. The Proposed Project is therefore considered acceptable in this context and is in alignment with emerging baseline trends.

13.9 EIA Classification Summary

Topic	Landscape and/or Visual Receptor	Determination of Effects	Reference to Section	Residual Significance of Effect	Significance in the context of EIA
Construction Phase					
Landscape of Proposed Wind Farm	Landscape of Proposed Wind Farm.	Direct, Short-Term, Negative, Slight.	Section 13.7.2.1.	"Slight" landscape effects.	Not significant.
Landscape of Proposed Grid Connection Route	Landscape of Proposed Grid Connection Route.	Direct, Short-Term, Negative, Slight.		"Slight" landscape effects.	Not significant.
Visual Effects of Proposed Wind Farm elements	Local receptors surrounding the site.	Direct, Short-Term, Negative, Slight.	Section 13.7.2.2.	"Slight" visual effects.	Not significant.
Visual Effects of Proposed Grid Connection elements	Local receptors surrounding the route.	Direct, Short-Term, Negative, Slight.		"Slight" visual effects.	Not significant.
Visual Effects of Turbine Delivery Route works	Local receptors surrounding the route.	Direct, Short-Term, Negative, Slight.		"Slight" visual effects.	Not significant.
Operational Phase					
Landscape of Proposed Wind Farm	Landscape of Proposed Wind Farm.	Direct, Long-Term, Negative, Moderate.	Section 13.7.3.1.1.	"Moderate" landscape effects.	Not significant.
Landscape of Proposed Grid Connection Route	Landscape of Proposed Grid Connection Route.	Direct, Permanent, Negative, Imperceptible.	Section 13.7.3.1.2.	"Imperceptible" landscape effects.	Not significant.
Landscape of Proposed 110kV Substation	Landscape around the Proposed 110kV Substation.	Direct, Permanent, Negative, Not Significant.	Section 13.7.3.1.3.	"Not Significant" landscape effects.	Not significant.

Topic	Landscape and/or Visual Receptor	Determination of Effects	Reference to Section	Residual Significance of Effect	Significance in the context of EIA
Visually Vulnerable Area	Linear ridgeline within the site, located west of Knockachree and Knockalongy peaks.	Direct, Long-Term, Neutral, Not Significant.	Section 13.7.3.1.4.	"Not Significant" landscape effects.	Not significant.
Co. Mayo Policy Area 4	General landscape of Policy Area 4.	Indirect, Long-Term, Negative, Not Significant.	Section 13.7.3.1.5	"Not Significant" landscape effects.	Not significant.
M-LCU-G character area	General landscape of LCU-G.	Indirect, Long-Term, Negative, Not Significant.	Section 13.7.3.1.6.	"Not Significant" landscape effects.	Not significant.
Viewpoints VP01-VP15	Viewpoints are representative of key landscape and visual receptors throughout the LVIA Study Area.	Direct, Long-Term. Range: Negative to Neutral/ Negative. Range: Slight, Not Significant, Moderate.	Section 13.7.3.2.1.	"Slight" to "Moderate" visual effects.	Not significant.
Designated Scenic Routes within 5km	Motorists, walkers, cyclists of Co. Sligo SR-58, SR-70, SR-7.	Direct, Long-Term, Neutral/ Negative. Range: Slight, Moderate.	Section 13.7.3.2.2.	"Slight" to "Moderate" visual effects.	Not significant.
Designated Scenic Routes beyond 5km	Motorists, walkers, cyclists of Co. Sligo SR-20, SR-28, SR-53, SR-56 and Co. Mayo SR-15.	Direct, Long-Term, Neutral/ Negative. Range: Slight, Not Significant.		"Slight" to "Not Significant" visual effects.	Not significant.
Recreational Routes within 5km	Motorists, walkers, cyclists of Sligo Way and	Direct, Long-Term, Neutral/ Negative.	Section 13.7.3.2.3.	"Not Significant" to "Moderate" visual effects.	Not significant.

Topic	Landscape and/or Visual Receptor	Determination of Effects	Reference to Section	Residual Significance of Effect	Significance in the context of EIA
	Lough Easky Loop.	Range: Not Significant, Moderate.			
Recreational Routes beyond 5km	Motorists, walkers, cyclists of Aughris Coastal Walk and Kilcummin Loop Walks, and visitors to Rosses Point.	Direct, Long-Term, Neutral/ Negative, Not Significant.		"Not Significant" visual effects.	Not significant.
Cultural Heritage and Tourist Destinations	Local visitors to Cooper's Lodge and motorists of Wild Atlantic Way.	Direct, Long-Term, Neutral/ Negative. Range: Not Significant, Significant.	Section 13.7.3.2.4.	"Not Significant" to "Significant" visual effects.	Not significant to significant.
Settlements	Co. Sligo village of Dromore West.	Direct, Long-Term, Neutral/ Negative, Slight.	Section 13.7.3.2.5.	"Slight" visual effects.	Not significant.
Transport Routes	Motorists, walkers, cyclists of N59 National Road.	Direct, Long-Term, Neutral/ Negative. Range: Imperceptible, Moderate.	Section 13.7.3.2.6.	"Imperceptible" to "Moderate" visual effects.	Not significant.
Sligo Passage Tomb Landscape	Users of Queen Maeve Trail and visitors to Queen Maeve's Tomb.	Direct, Long-Term, Neutral/ Negative, Not Significant.	Section 13.7.3.2.7.	"Not Significant" visual effects.	Not significant.
Visual Effects of Proposed Onsite 110kV Substation	Local receptors surrounding the substation location.	Direct, Permanent, Neutral, Not Significant.	Section 13.7.3.2.8.	"Not Significant" visual effects.	Not significant.

Topic	Landscape and/or Visual Receptor	Determination of Effects	Reference to Section	Residual Significance of Effect	Significance in the context of EIA
Visual Effects on Local Residential Receptors	Local receptors to the North and Northwest.	Direct, Long-Term, Negative, Moderate.	Section 13.7.3.2.9.	"Moderate" visual effects.	Not significant.
Decommissioning Phase					
Landscape of Proposed Wind Farm	Landscape of Proposed Wind Farm.	Same as Construction Phase (see above).	Section 13.7.5.	"Slight" landscape effects.	Not significant.
Landscape of Proposed Grid Connection Route	Landscape of Proposed Grid Connection Route.			"Slight" landscape effects.	Not significant.
Visual Effects of Proposed Wind Farm elements	Local receptors surrounding the site.			"Slight" visual effects.	Not significant.