Chapter 13 - Landscape and Visual

Killoshulan Wind Farm

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GLOSSARY OF TERMS

Term	Meaning
Draft 2019 Guidelines (DoHPLG, 2019)	The 2019 Draft Wind Energy Guidelines. The draft document of the updated Wind Energy Development Guidelines yet to be published.
Landscape Character Area (LCA)	Units of the landscape that are geographically specific and have their own character and sense of place. Each LCA has its own distinctive character, based upon patterns of geology, landform, land use, cultural, historical and ecological features.
Photomontage	These are visualisations that superimpose an image of a Proposed Project upon a photograph or series of photographs from a specific location, termed the 'viewpoint'.
Route Screening Analysis (RSA)	An exercise where transport routes were driven in real-time and the level of roadside visual screening, in the direction of the Proposed Turbines, was recorded to inform actual on the ground visibility.
Viewpoint	This is typically in reference to a select location where a photomontage has been captured, which is represented in the Photomontage Booklet.
The Guidelines (DoEHLG, 2006)	The 2006 Wind Energy Development Guidelines. The current published wind energy development guidelines which address a variety of aspects relating to wind energy developments inclusive of noise, shadow flicker, setback distances and community obligations.
Zone of Theoretical Visibility (ZTV)	A computer-generated representation identifying areas from which elements of the Proposed Project may theoretically be visible, based on specified modelling assumptions. Actual visibility may be reduced by intervening vegetation, buildings and other screening features.

GLOSSARY OF ACRONYMS

Acronym	Meaning
ACP	An Coimisiún Pleanála
AHA	Area of High Amenity
CDP	County Development Plan
DoEHLG	Department of the Environment, Heritage and Local Government
DoHPLG	Department of Housing, Planning and Local Government
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report

EPA	Environmental Protection Agency
GIS	Geographic Information System
KCC	Kilkenny County Council
KCCDP	Kilkenny City and County Development Plan
LCA	Landscape Character Area
LCT	Landscape Character Type
LVIA	Landscape and Visual Impact Assessment
OHL	Overhead Line
RSA	Route Screening Analysis
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 four appendices:

- **EIAR Volume 2 Photomontage Booklet** (Hereafter 'Photomontage Booklet'): A1 Banner Photomontage Booklet presenting verified photomontage visualisations from representative viewpoints;
- **Appendix 13-1, LVIA Methodology:** An appendix detailing the methodology and guidance used for the assessments reported in this chapter;
- **Appendix 13-2, LCA Impact Assessment:** An assessment of effects on designated Landscape Character Areas (LCAs);
- **Appendix 13-3, Visual Impact Assessment of Viewpoints:** A visual impact assessment of the representative viewpoints included in the Photomontage Booklet;
- **Appendix 13-4, 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 Dija Mazonaite with guidance and direction from Jack Workman with oversight by Michael Watson. Aaron McEvoy assisted and provided technical support for this chapter.

Dija Mazonaite is a Project Environmental Scientist - LVIA Specialist at MKO. Dija holds a BSc (Hons) in Geography & Geosystems from University of Galway, a Postgraduate Certificate in Marine Spatial Planning from Atlantic Technological University, and a University Certificate of Study (NFQ Level 9 Minor Award) in Landscape and Visual Impact Assessment (LVIA) from the University of Limerick, a specialist postgraduate qualification developed specifically for professionals undertaking LVIA. Dija was also recognised as a University Scholar at the University of Galway. Dija's primary role at MKO is producing and reviewing the LVIA chapter of EIA reports for large-scale infrastructure developments with over 3 years' experience writing, has responsibilities to mentor various grades of team members and project manages all aspects of LVIA for a broad range of commercial infrastructure developments including wind and solar energy projects, grid infrastructure, extraction industry and Strategic Housing Developments. Dija's 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. Dija is an affiliate member with the Landscape Institute and is an active participant of the Irish National Landscape Forum. Dija also regularly delivers guest lectures for students on the topic of LVIA at top third level institutions in Ireland.

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 and including national-scale landscape policy research and involvement in the National Landscape Forum. 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, leading workshops and 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.

Michael Watson is the Environment Division Director in MKO who has over 25 years' 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 2014. 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 2014. 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).

Aaron McEvoy is a Graduate LVIA practitioner with MKO. Aaron holds a BA (Hons) in Geography and Economics from the University of Limerick and a master's in planning and Sustainable Development (MPlan) from University College Cork. Since joining MKO Aaron has gained experience engaging in LVIA assessments for wind energy and public infrastructure. Aaron's key strengths include proficiency in GIS tools such as QGIS and ArcGIS, conducting landscape and visual impact assessments, and capturing data through drone surveys and photomontages.

13.1.2 Proposed Project Description

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

This planning application seeks a ten-year planning permission and 35-year operational life from the date of commissioning of the entire wind farm.

13.1.2.1 In-Text Reference to the Proposed Project

The following references are used throughout this chapter as per the definitions set out in Chapter 1 of this EIAR:

- Where the **'Proposed Project'** is referred to this encompasses 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.
- Where the **'Proposed Wind Farm'** or the **'Proposed Wind Farm site'** is referred to, this refers to turbines (Proposed Turbines) and associated foundations and

hardstanding areas, including entrances and access roads, underground cabling, permanent meteorological mast, temporary construction compounds, turbine delivery accommodation works, spoil management areas, borrow pit, tree felling, site drainage, operational stage signage, battery energy storage system (BESS), biodiversity enhancement areas and all ancillary works and apparatus. The Proposed Wind Farm is described in detail in Chapter 4 of this EIAR.

- Where the **'Proposed Grid Connection'** is referred to, this refers to the on-site 110kV Substation, all ancillary works and underground 110kV grid connection cabling connecting to the existing Ballyragget 110kV Substation, Co. Kilkenny, and all ancillary works and apparatus. The Proposed Grid Connection is described in detail in Chapter 4 of this EIAR.
- The **'Proposed 110kV Substation'** refers to the new proposed onsite electricity infrastructure proposed within Frankford or Ballykieran townland, Co. Kilkenny comprising 2 No. control buildings and the electrical substation components necessary to consolidate the electrical energy generated by each wind turbine and export that electricity from the onsite 110kV substation to the national grid.
    - The **'Proposed 110kV Underground Cabling'** refers to new proposed 110kV underground electrical cabling connection from the 'Proposed 110kV Substation' to the existing 110kV Ballyragget substation, in the townland of Moatpark, approximately 1km north of Ballyragget, Co. Kilkenny. The underground electrical cabling route measures approximately 12.6km in length, the majority of which is located within the curtilage of the public road network.
- Where the '**Site**' is referred to, this relates to the primary study area for the EIAR, as delineated by the EIAR Site Boundary in green as shown on Figure 1-1 of the EIAR and encompasses an area of approximately 796 hectares. Where the 'Proposed Wind Farm site' is referred to, this relates the EIAR Site Boundary without the corridor that encompasses the Proposed 110kV Underground Cabling Route.

13.1.2.2 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) as well as 'Notes and Clarifications on Aspects of GLVIA3: Landscape Institute Technical Guidance Note 2024-01' (hereafter, LI TGN 24-01) published by the Landscape Institute (LI) (2024). This guidance 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 Project 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 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 Project 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.

13.1.3 Mitigation by Design

The Proposed Wind Farm site 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 used to bring forward the optimum design for the Proposed Project with respect to landscape and visual factors. These tools include landscape modelling, ZTV mapping, field surveys, and the preparation photomontage visualisations. Multiple LVIA surveys and assessment work has been undertaken since 2020 to progressively inform the turbine layout and embed landscape and visual mitigation into the Proposed Project.

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

Site Selection and Early-Stage LVIA –Landscape Capacity Assessment

Early-stage site selection and LVIA of the Proposed Project included a dedicated Landscape Capacity Assessment. This assessment examined the capacity of the receiving landscape to accommodate wind energy development, having regard to landscape character, sensitivity, scenic views and visual receptors. The assessment considered an initial indicative layout comprising a greater number of turbines within viable areas further south-west and east identified through preliminary environmental constraints mapping.

The early-stage Landscape Capacity Assessment identified that the receiving landscape had capacity to accommodate wind energy development, subject to appropriate turbine siting, layout and scale. Particular consideration was given to the elevated nature of Clomantagh Hill, designated scenic views, archaeological features and the potential for visual effects on surrounding residential receptors.

The Landscape Capacity Assessment informed the early-stage design process through an assessment of theoretical visibility and photomontages from representative viewpoints surrounding the Proposed Wind Farm site. The assessment recommended the omission of turbines in visually prominent locations and the refinement of the turbine arrangement to improve its visual coherence and relationship with the underlying landform. The assessment ultimately identified a recommended 13-turbine layout considered appropriate for the capacity of the receiving landscape.

Subsequent design iterations, as detailed in Section 3.2.5.2 of Chapter 3, further refined the Proposed Wind Farm layout through environmental constraints mapping, site investigations and consideration of landscape and visual, cultural heritage, hydrological and geological sensitivities. The initial 13-turbine layout documented in Chapter 3 was reduced to 11 No. turbines following changes in land availability and consideration of potential visual effects on Clomantagh Hillfort (i.e. Mount Garret Hillfort – KK008-124002-) and the peak of Spahill. Further hydrological and geotechnical investigations resulted in the omission of an additional turbine, with the final Proposed Wind Farm comprising 10 No. turbines. The iterative design process also informed the siting of infrastructure to minimise the potential for environmental effects. The landscape and visual considerations relevant to the siting and design of the Proposed Project are established below and are of key relevance to this LVIA.

Siting in a Suitable Landscape for Wind Energy Development

During the initial site selection process, landscape sensitivity was identified as a key constraint and so landscapes considered to be less sensitive are preferred over sites with greater sensitivity to change. The

following factors detail why the Proposed Wind Farm site was strategically selected as a landscape highly suitable for the development of wind energy.

- **Siting in a Rural Working Landscape.** All Proposed Turbines and infrastructure of the Proposed Wind Farm are strategically sited in a rural working landscape comprising a mix of agricultural land and forestry plantation. The Proposed Wind Farm site itself has been modified from its natural state and is considered to have relatively low sensitivity to wind farm development given its large scale, sparse settlement pattern and land use characteristics.
- **Strategic Siting of the Proposed Turbines on Elevated Terrain:** The Proposed Turbines are strategically sited upon the elevated slopes of the Proposed Wind Farm site to achieve physical and visual separation from the receptors in the surrounding lowland landscape, including main public roads and large population centres.
- **Suitable Landscape Character Type for Wind Energy Development.** The Proposed Wind Farm is located within foothills to the upland area of the Slieveardagh Hills. Foothills such as the Proposed Wind Farm site are commonly considered one of the most suitable landscape types for the development of wind energy in Ireland, given they are typically working landscapes lacking unique, distinguishing or special landscape qualities within a national context, particularly compared with more dramatic and mountainous upland areas. This can be seen by wind energy developments in the wider landscape within foothills of upland landscapes, including Lisdowney Wind Farm (sited between c. 245m - 290m OD) Ballybay Wind Farm (sited between c.280m - 325m OD), and An Cnoc Wind Farm (sited between c. 300m - 330m OD).

Project Layout, Design and Embedded LVIA Mitigation

Details of the various Proposed Project layout iterations and the considerations related to potential landscape and visual effects are described in detail in Chapter 3. The Proposed Project incorporates the following landscape and visual design considerations for best practice wind farm design, including measures arising from early-stage assessment including the early-stage LVIA Capacity Assessment:

- **Best Practice Setback from Residential Receptors:** All Proposed Turbines, substantially exceed the minimum 500m set-back distance from residential properties as set out in the Guidelines (DoEHLG, 2006), and also provides for the recommended best practice 4-times-tip-height set-back distance from residential receptors explicitly set out for residential visual amenity by the Draft 2019 Guidelines (DoHPLG, 2019),
- **Strategic siting of turbines to retain the integrity of Protected View No. 14:** At an early stage the Proposed Project was designed to ensure no turbines are visible within the high-quality landscape views looking north from the car park and viewing area representing Co. Kilkenny Protected View 14 (including the Tailte Eireann viewpoint). All Proposed Turbines and the Proposed Wind Farm are located within the conifer plantations and farmland south of the local road, in the opposing direction of the primary scenic amenity experienced from Protected View 14 and the Tailte Eireann Viewing Point.
- **Omission of all turbines on the western slope of Clomantagh Hill**: A hillfort is located to the south-west of the Proposed Wind Farm site. Removal of turbines and project footprint in this area has the following beneficial outcomes:
    - Eliminates any potential direct landscape effects on the hillfort itself and its immediate landscape setting. All infrastructure is set-back 785 metres from the hillfort.
    - The Proposed Turbines are well set-back from surrounding visual receptors to the west, minimising visual impact on local residential amenity in this direction (see theoretical visibility map on Figure 13-1)

- Removal of turbines previously located west of the westernmost ridgeline reduces the number and horizontal extent of the Proposed Turbines in views from both the south and north, including from Clomantagh Castle.
- Mitigating potential to obscure intervisibility between the hillfort and other sites of potential cultural heritage connection.

- **Alignment with the Design Guidance for Transitional Marginal Landscape in the Guidelines and Draft 2019 Guidelines (DoHPLG, 2019).** The Proposed Turbine layout has been designed to create a visually coherent arrangement of turbines, contiguous and connected to each other visually and with consistent spacing in line with best practice guidance. The Proposed Turbines adhere to the guidance for the design and siting of wind farms with the 'Transitional Marginal' landscape type defined in the Guidelines (DoEHLG, 2006) and Draft 2019 Guidelines (DoHPLG, 2019).
- **Micro-siting to avoid visual prominence on surrounding residential receptors.** Turbines previously located on the lower slopes were omitted where their scale and position relative to the surrounding residential receptors resulted in greater visual prominence and reduced the overall coherence of the turbine layout, particularly in views on the approach from Freshford. Turbines were omitted from potentially viable land to the south-east of the Proposed Wind Farm site to mitigate visual impact on residential receptors in this area.
- **Avoidance of Landscape Receptors on Site:** The layout of the Proposed Project ensures minimal loss of valuable landscape receptors and biodiversity corridors such as mature hedgerows; the design ensures the integrity of existing field boundaries.
- **Siting of the Proposed 110kV Substation to reduce landscape and visual impact:** The Proposed 110kV Substation is sited in an area of the Proposed Wind Farm site relatively confined and enclosed by the surrounding landforms, limiting visibility from visual receptors in the lowlands surrounding Spa Hill and Clomantagh Hill.
- **Avoidance of valuable landscape receptors and biodiversity corridors:** The layout and design of the Proposed Wind Farm has been designed to ensure minimal loss of valuable landscape receptors and biodiversity corridors such as woodland and hedgerows along field boundaries.
- **Pro-active Biodiversity Enhancement Measures:** A *Biodiversity Enhancement and Management Plan* (BEMP) has been prepared as part of this EIAR and is included as *Appendix 6-4* to this EIAR. Enhancement measures included in the BEMP will have a dual effect of providing ecological enhancement to the area as well as screening of some Proposed Wind Farm infrastructure, thereby providing a mitigating effect on landscape, including planting of 225m of new hedgerow, bolstering and enhancement of approximately 3.38km of existing hedgerows, and enhancement of approximately 11.8ha of existing grassland areas.

13.1.4 Scoping Replies & Pre-Planning Meetings

An EIAR scoping document, providing details of the Proposed Project, was prepared by MKO and circulated to statutory consultees in 2022 to determine the content, depth and extent of the topics to be addressed in the environmental information submitted to the competent authority. An updated scoping document was issued to consultees in May 2026, reflecting the time elapsed since the previous scoping exercise, updates in local and national policy, legislation and relevant EIAR guidance, changes in the environmental baseline, and refinement of the Proposed Project layout and design. A full description of the scoping and consultation exercise, including the complete list of consultees and the responses received, is provided in Section 2.7 of Chapter 2 of this EIAR. The scoping responses applicable to LVIA are summarised below.

13.1.4.1 Scoping Replies

Kilkenny County Council

Kilkenny County Council (hereafter 'KCC') provided a scoping response by letter dated 27th September 2022. No points relating to LVIA were raised.

KCC provided a scoping response by letter dated 19th June 2026 and included the following points relevant to LVIA:

- Requested that landscape baseline includes reference to both the Kilkenny and Laois County Development Plans: *All relevant county development plans (including Co. Kilkenny, Co. Laois, and Co. Tipperary) and the relevant landscape and visual designated are assessed in the landscape and visual baselines of this Chapter.*
- Requested that ZTV mapping covering out to 15km: *The ZTV for the Proposed Turbines covered the full 20km LVIA Study Area.*
- Requested reference to national and international policy and guidance on LVIA: *This Chapter references industry best practice guidance for wind energy developments (see Appendix 13-1 Methodology).*
- Requested the provision of before-and-after visualisations, presenting a worst-case visibility scenario, design flexibility, as well discussion of mitigation measures: *Photomontage Viewpoint visualisations of the Proposed Project show a before (i.e. the existing baseline view) and after (i.e. proposed photomontage view). Site visits were carried out 2020, 2022 and 2026 during different seasonal months. The Photomontage viewpoint assessments are assessed in Appendix 13-3 Photomontage Impact Assessment Tables (mitigation measures included). The Proposed Project does not have design flexibility.*
    - Requested that photomontages should be from designated scenic viewpoints identified in the Kilkenny and Laois County Development Plans: *Relevant designated scenic viewpoints are considered in this Chapter.*
    - Requested that consideration is given to site location and surrounding topography: *The photomontage viewpoints presented in this Chapter were captured at varying distances (up to 20 km) and from different landforms across the LVIA Study Area, providing a representative range of views from the surrounding landscape.*
    - Requested that CGIs are captured from gaps in roadside vegetation: *Photomontage Viewpoints (Type 4 Visualisation) are captured from various locations where most visibility occurs. Photowires (draft photomontages – Type 3 Visualisations) are also shown in this Chapter to present views where roadside screening obscures visibility towards the Proposed Turbines.*
    - Requested viewpoints from towns and villages / rural nodes, such as Johnstown, Freshford, Gattabaun, Lisdowney, Woodsgift and Urlingford: *This Chapter considers key settlements and population centre within the LVIA Study Area such as large towns and villages within 20km and smaller rural settlements of local importance within 10km.*
    - Requested viewpoints from scenic landscapes / points of interest such as Spahill, Cullahill Mountain and local walking trails: *This Chapter considers all relevant scenic landscapes / points of interest within the 20km LVIA Study Area.*
    - Requested the inclusion of all other cumulative wind energy developments to be included in the photomontages and assessed in the LVIA Chapter: *This LVIA Chapter assesses cumulative landscape and visual effects arising with other relevant cumulative wind energy developments. All other cumulative developments are also presented in the Volume 2: Photomontage Booklet.*

Laois County Council

Laois County Council provided a scoping response (via the KCC scoping response above) by letter dated 19th June 2026 and included the following points relevant to LVIA:

- Requested that the LVIA should consider the Laois County Development Plan 2021–2027, and appendices: *Laois County Development Plan, and associated appendices are assessed in the LVIA Chapter.*
- Requested wind farm applications and developments in Laois should also be included in the cumulative assessment: *This LVIA includes assessment of cumulative landscape and visual effects, focussing on in combination effects with other wind energy developments and other relevant substantial infrastructure developments.*
- Requested that the zone of theoretical visibility should extend into County Laois were applicable: *The zone of theoretical visibility for the Proposed Project extends into surrounding counties where applicable.*

Failte Ireland

Failte Ireland provided a scoping response (via the KCC scoping response above) by letter dated 19th June 2026. Failte Ireland issued a copy of Failte Ireland EIAR Guidelines to be considered in the EIAR. The guidelines relevant to landscape have been considered in this Chapter.

13.1.4.2 Pre-planning Meetings

In addition to the statutory scoping exercise, the Applicant and members of the project team held pre-planning consultation meetings with ACP, and KCC. The principal matters discussed are summarised below. Further detail on the wider pre-planning and consultation process is provided in Section 2.7 of Chapter 2 of this EIAR.

Kilkenny County Council

1st Pre-Application Meeting – 7th September 2022

A pre-planning meeting was held with KCC on 7th September 2022. As detailed in Chapter 2, Section 2.7, the Proposed Project team gave an overview of the Proposed Project with the following LVIA topics noted by the council which are addressed in this Chapter:

- Requested that protected views are assessed within the LVIA Study Area : *Protected views within the 20km LVIA Study Area are considered and reported in this Chapter and are represented in the Photomontage Booklet (Volume 2 of this EIAR) by the following Viewpoints; VP02, VP06, VP07, VP08, VP09, VP10, VP17, VP20. Refer to Sections 13.4.1.2.5, 13.5.1.1 and 13.5.2.1 of this Chapter.*
- Highlighted that the visual assessment should take into account views of the proposed development from local dwellings and protected sites, rather than focusing exclusively on views from the public road network: *In accordance with GLVIA3 (paragraphs 6.13 and 6.20), local residents are considered as visual receptors in this Chapter. Consistent with the GLVIA3 Notes and Clarifications (LI, 2023), residential effects are assessed from publicly accessible locations representative of local communities, including viewpoints within or adjacent to settlements and clusters of dwellings, rather than solely from the road network (see Section 13.5.3). Views from within individual properties are a matter of private amenity and fall outside the scope of LVIA (GLVIA3, paragraph 6.17).* The need to assess views from protected sites, including relevant heritage locations: *Visual impacts from publicly accessible cultural heritage receptors are considered and reported in this Chapter. Please refer to*

Section 1.4.3.1 of Appendix 13-1 Methodology 'Assessment of Archaeological or National Monument Receptors'.

2nd Pre-Application Meeting - 17th June 2026

A pre-planning meeting was held with KCC on 17th June 2026. As detailed in Chapter 2, Section 2.7, the Proposed Project team gave an overview of the Proposed Project with the following LVIA topics noted by the council which are addressed in this Chapter:

- KCC specifically questioned the combined visual impact of Killoshulan Wind Farm with other existing or proposed wind farms in northern County Kilkenny: *This LVIA includes assessment of cumulative landscape and visual effects.* Refer to Sections 13.6.1, 13.7.3.1 and 13.7.3.2 of this Chapter.
- KCC questioned the ability of the surrounding landscape to absorb the proposed wind farm in combination with other wind energy developments: *The scale of the Proposed Project and potential for cumulative landscape effects are considered and assessed in this LVIA.* Refer to Sections 13.1.3, 13.4.2.2, 13.4.3 and 13.7.3.1 of this Chapter.

An Coimisiún Pleanála

Three on-line pre-planning meetings were held with ACP with LVIA aspects discussed as follows:

1st Pre-Application Meeting – 13th October 2022

- Queried the archaeological landscape designations contained within the Kilkenny Wind Energy Strategy, particularly the apparent absence of Spa Hill from the archaeological sites identified: *Archaeological Landscape Designations are discussed in Section 13.4.1.2.3 of this Chapter and in further detail in Chapter 14 of this EIAR.*

2nd Pre-Application Meeting – 22nd June 2026

- Advised that a robust methodology for impact assessment, including cumulative effects, should be applied throughout the EIAR: *This LVIA includes a robust methodology for the assessment of cumulative landscape and visual effects. Refer to Appendix 13-1 of this Chapter.*

3rd Pre-Application Meeting – 15th September 2026

- Advised that the assessment should address any residential receptors likely to experience significant visual effects from the proposed development: *Visual impacts on residential receptors are considered and reported in this Chapter. Refer to Sections 13.5.3 and 13.7.3.2.4 of this Chapter.*
- Requested that Kilkenny Castle be referenced within the landscape and visual assessment, as well as any that other historic monuments of significance within a 20km radius: *Kilkenny Castle is considered in the scoping exercise of this Chapter (see Section 13.5.2.2), and has been scoped out from assessment along with the settlement of Kilkenny City due to limited theoretical visibility of the Proposed Turbines. On-site visibility appraisals further determined that actual visibility would be even more restricted due to the intervening-built environment within the low-lying landscape. Visual impacts on other scoped in cultural heritage receptors are considered and reported in this Chapter and are represented in the Photomontage Booklet by the following Viewpoints; VP03, VP11, VP12, VP15, VP18. Refer to Sections 13.5.1.5, 13.5.2.1 and 13.5.2.2 of this Chapter.*

13.2 Brief Methodology and Assessment Criteria

This section briefly outlines the guidance and methodology used to undertake the LVIA of the Proposed Project; the full detailed description of the methodology is provided in *Appendix 13-1: LVIA Methodology*.

There are five main sections to this assessment:

- Visibility of the Proposed Project (e.g. ZTV mapping);
- Landscape baseline;
- Visual baseline;
- Cumulative context with respect to other wind farm developments within the 20km LVIA Study Area;
- Likely significant landscape and visual effects – summarising all landscape, visual and cumulative effects of the Proposed Project determined by this LVIA.

13.2.1 Guidelines

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 the Landscape and Visual Impact Assessment. Details of the guidance used to conduct this LVIA are outlined in Section 1.2 of the LVIA Methodology Appendix (Appendix 13-1).

13.2.2 Scope of the LVIA and Study Areas

The landscape and visual effects of the Proposed Project on the Site are assessed in this LVIA. However, the landscape baseline mapping, visual receptor mapping and viewpoint selection are based on wider study areas. Following best practice guidance, the experience and professional judgement of the assessment team, two study areas were defined for this LVIA:

- **'LVIA Study Area':** All of the landscape within **20km** from the Proposed Turbines for assessment of effects on landscape and visual receptors and is the search area for other wind energy developments included for cumulative assessment;
- **'LCA Study Area':** All of the landscape within **15km** from the Proposed Turbines for assessment of effects on designated Landscape Character Areas (LCAs).

The full justification and rationale for use of the LVIA Study Area for assessment of effects on landscape and visual receptors, LCA Study Area for assessment of effects on designated LCAs are presented in detail in Section 1.4 of Appendix 13-1: *LVIA Methodology*.

After defining the parameters for this LVIA, and on the basis of desk studies, survey work undertaken, professional judgement and experience of the assessment team, the following are scoped out of assessment in this LVIA:

- Effects on landscape and visual receptors with minimal or no theoretical visibility (as predicted by the ZTV mapping), and/or very distant visibility, and are therefore unlikely to be subject to significant effects;
- Effects on designated landscape receptors beyond 20km from the Proposed Turbines where it is judged that significant effects on key characteristics and/or special qualities are unlikely to occur;
- Effects on designated LCAs beyond 15km from the Proposed Turbines, where it is judged that significant effects on landscape character are unlikely to occur;
- Effects on visual receptors beyond 20km from the Proposed Turbines where it is judged that significant effects are unlikely occur;

- Cumulative landscape and visual effects beyond 20km from the Proposed Turbines where it is judged that significant effects are unlikely to occur.
- Cumulative effects in combination with single turbines with a tip height lower than 50 metres beyond 3km from the Proposed Turbines, where it is judged that significant effects are unlikely to occur in these potential cumulative scenarios.

13.2.3 Assessment of Potential Impacts

The landscape and visual assessment methodology used in this chapter (Detailed in Appendix 13-1:) includes clearly documented methods based on the GLVIA3 (LI & IEMA, 2013). This includes consideration of landscape and visual sensitivity balanced with the magnitude of change to determine the likely significance of effects. Potential for cumulative effects are also considered and accounted for in these determinations and judgements. Mitigating factors are then taken into consideration 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 'Guidelines on the Information to be Contained in Environmental Impact Assessment Reports' (EPA, 2022). The assessments have been informed by many site visits and are supported by a range of best practice tools for LVIA including ZTV mapping and photomontages. Further details of the methods used to produce ZTV maps and photomontages, as well as the LVIA process, including assessment of cumulative effects are presented in Appendix 13-1.

13.2.4 LVIA Wind Energy Context

Given Ireland's renewable energy targets which have been set by the State for on-shore renewable wind energy development, wind turbines will form a new component in the Irish landscape for the coming decades. 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 EPA (2022) definition of significance, 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 scale of the Proposed Turbines relative to the landscape as a result of setback distance.
- The number of Proposed Turbines visible.
- The degree of visibility of Proposed Turbines e.g. are they fully or partially screened from view by existing features of the landscape.
- The perceived horizontal extent of Proposed Turbines within the field of view, e.g. how wide of an extent do the Proposed Turbines occupy in terms of what is experienced by receptors.
- Overall visual coherency with regards to form and arrangement and how the Proposed Turbines correspond to the landscape from a particular vantage point as per best practice siting and design guidance.

13.3 Visibility of the Proposed Project

13.3.1 ZTV Mapping: Theoretical Visibility of the Proposed Turbines

Zone of Theoretical Visibility (ZTV) mapping is an important step in the LVIA process, in that it clearly shows which areas of the LVIA Study Area will have theoretical visibility of the Proposed Turbines and which areas will have no theoretical visibility.

The ZTV mapping methodology outlined in Section 1.3 of Appendix 13-1 was used to examine the theoretical visibility of the 10 No. Proposed Turbines from all landscape and visual receptors within the LVIA Study Area, using the half blade height of the wind turbines as points of reference. As noted in Appendix 13-1, actual visibility on the ground is substantially less than predicted by the ZTV mapping due to intervening factors such as visual screening from above ground natural and man-made features, atmospheric weather, and/or localised topography.

Generation of the ZTV utilises large scale topographical data (interpolation across 10m Tailte Éireann contour data) and does not account for topographical variation of smaller scale (e.g., < 10 metre). Therefore, in reality, small, localised undulations within the landscape are likely to further inhibit visibility of the Proposed Turbines than is represented in the ZTV map. Other above ground features of the landscape such as vegetation and man-made elements are also likely to obscure the Proposed Turbines from view from many areas where the ZTV indicates there is full visibility. In this regard, the ZTV is a useful tool to indicate where there is no theoretical visibility of the Proposed Turbines, therefore, receptors located in these areas can be scoped out from further assessment.

Map Legend

- LVIA Study Area
- Proposed Turbines
- County Boundaries

Zone of Theoretical Visibility

- 1-3 Turbines Theoretically Visible
- 4-7 Turbines Theoretically Visible
- 8-10 Turbines Theoretically Visible

5 km
10 km
15 km
20 km

0 2.5 5 km

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Drawing No.

Figure 13-1

Drawing Title

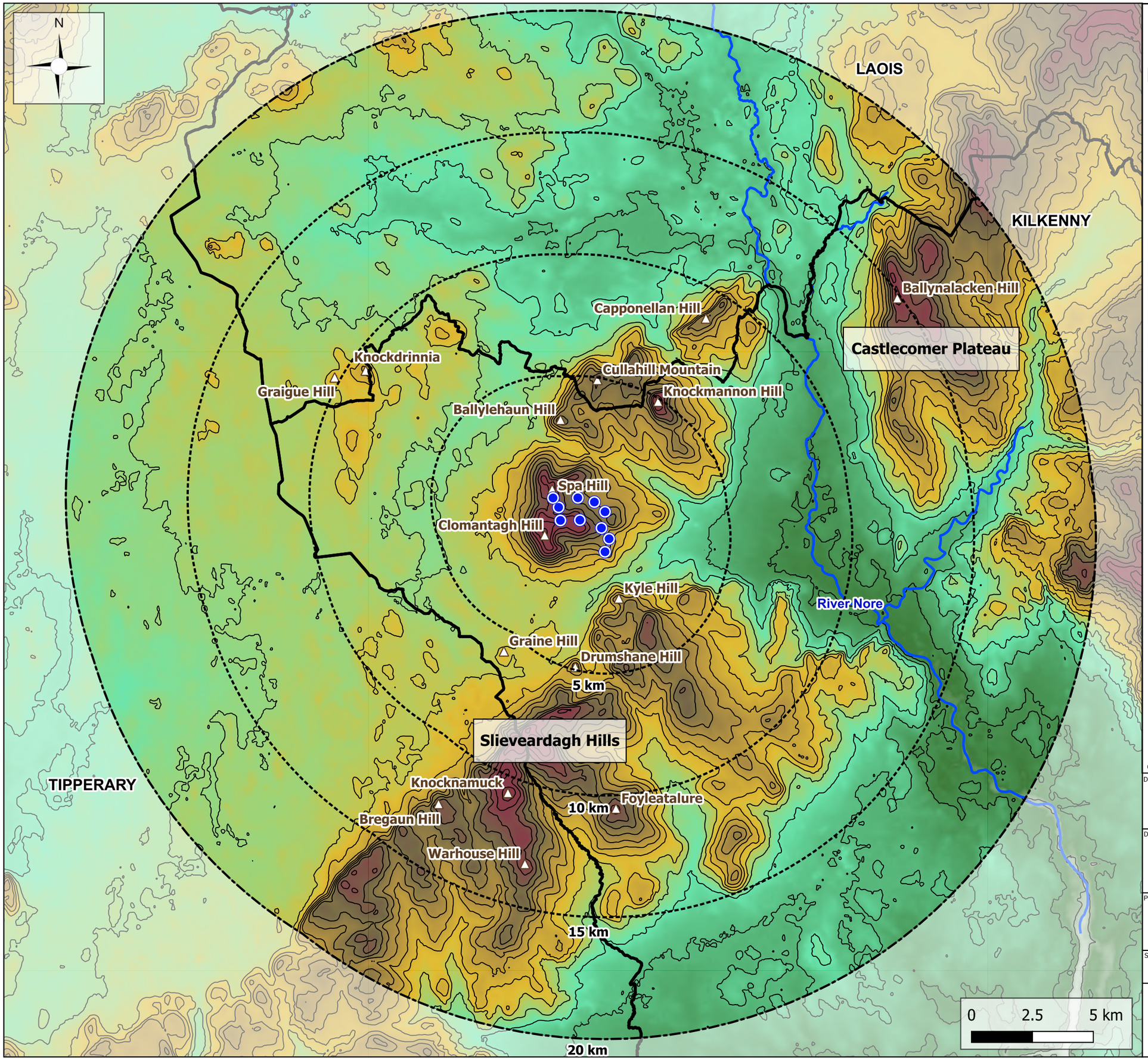
Zone of Theoretical Visibility (ZTV)

Project Title

Killoshulan Wind Farm

Scale	Project No.	Date	Drawn By	Checked By
1:150,000	260172	27.10.2026	GL	DM

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Map Legend

- LVIA Study Area
- County Boundaries
- Proposed Turbines

Physical Landscape Features

- Key Hills
- Key Rivers
- 20m contours

Elevation Above Ordnance Datum

- 50m
- 100m
- 150m
- 200m
- 250m
- 300m

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Drawing No.

Figure 13-2

Drawing Title

Physical Landscape Features

Project Title

Killoshulan Wind Farm

Scale	Project No.	Date	Drawn By	Checked By
1:150,000	260172	27.10.2026	GL	DM

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13.3.2 Half Blade ZTV of the Proposed Turbines

The Half Blade ZTV map of the Proposed Turbines and LVIA Study Area is shown in Figure 13-1 above. Separate colour bands are used on each ZTV map to indicate the number of Proposed Turbines of which the half blade will potentially be visible due to visual screening from landform. The legend on each map shows the number of theoretically visible Proposed Turbines for each corresponding colour, which are as follows:

- Teal: 1-3 Proposed Turbines theoretically visible.
- Yellow: 4-7 Proposed Turbines theoretically visible.
- Dark Blue: 8-10 Proposed Turbines theoretically visible.

Figure 13-2 (above) shows the landform features and elevation gradients existent within the landscape of the LVIA Study Area, the geography of these topographical characteristics defines the distribution of theoretical visibility illustrated in Figure 13-1.

Landforms of the LVIA Study Area

The following discussion considers various topographical characteristics of the LVIA Study Area as they relate to the theoretical visibility as shown by the ZTV Map above.

In relation to landscape-related terminology and definitions of the topographical features of the LVIA Study Area, this chapter uses the following:

- '**Nore River'** and **'Nore River Valley'** refers to the primary river and valley feature traversing the full length of the LVIA Study Area from northwest to southeast.
- **'Slieveardagh Hills'** is the medium-scale regional uplands surrounding the Proposed Development and containing hills and mountains named herein. It also forms the western side of the Nore Valley.
- **'Spa Hill and Clomantagh Hill'** high elevation landforms associated with the Slieveardagh Hills, where the Proposed Turbines are sited.
- '**Ballynalacken Hill'** is the landform feature comprising the eastern side of the Nore Valley.
- **'Cullahill Mountain, Capponellan Hill, and Knockmannon Hill'** are the high-elevation landforms beyond the Proposed Wind Farm to the north.
- **'Castlecomer Plateau'** is a broad-scale regional plateau partially inside the eastern portion of the LVIA Study Area.

Figure 13-2 shows the Proposed Turbines are located on the eastern slopes of Spa Hill and Clomantagh Hill which form part of the Slieveardagh Hills complex (as defined and reported in local planning policy – See Section 13.4). The central upland areas of the Slieveardagh Hills are located at the southern extent of the LVIA Study Area, at Knocknamuck (the highest point of the range) and extends in a north-easterly direction towards the Proposed Wind Farm. The Slieveardagh Hill complex then continues in a northeasterly direction beyond the Proposed Turbines towards Knockmannon Hill. The landform of the Proposed Wind Farm site and other hills to the north are more like foothills, slightly disconnected from the larger scale landforms to the south. Clomantagh Hill reaches an elevation of 340m AOD at its highest point, making it the most pronounced landscape feature within 5km of the Proposed Turbines, but of lesser scale and prominence compared with other mountainous terrain in the LVIA Study Area and elsewhere in Co. Kilkenny.

The River Nore and its valley form one of the other defining landscape features of the LVIA Study Area. The valley runs the length of the LVIA Study Area from north-west to south-east and forms a broad, relatively low-lying corridor between the Slieveardagh Hills to the west and the Castlecomer Plateau to the east. To the west of the Proposed Turbines, beyond the Slieveardagh Hills, the landscape

is relatively flat and lower lying with agricultural lands and pockets peatlands throughout. The Castlecomer Plateau which partially falls within the northeastern extent of LVIA Study Area is a distinctive landscape area that consists of broad upland plains that overlook the Nore and Barrow valleys.

These topographical characteristics and features discussed here define the pattern and extent of theoretical visibility across the LVIA Study Area, as shown in Figure 13-1.

Theoretical visibility of the Proposed Turbines within 5km

The Proposed Turbines are sited alongside the eastern ridgelines of Spa Hill and Clomantagh Hill, in-between the two peaks. Within 5km of the Proposed Turbines, there is primarily full theoretical visibility to the north, east and south, across the valley formed by the surrounding peaks and extending onto the valley sides. To the west, theoretical visibility becomes more partial beyond the western extent of the ridgelines of Clomantagh Hill and Spa Hill, which provides topographical screening in this direction, particularly to the south-west. Smaller pockets of partial or no theoretical visibility also occur within 5km of the Proposed Turbines due to localised variations in the landform.

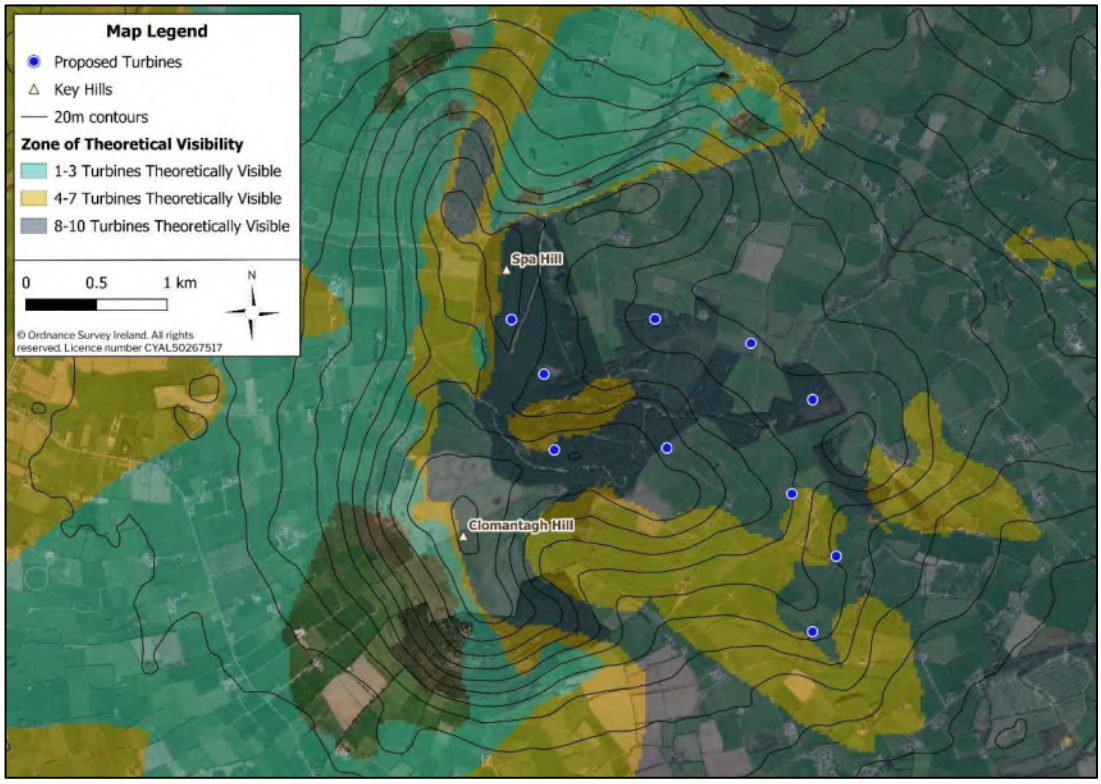


Figure 13-3 Theoretical visibility for key hills in proximity to the Proposed Turbines

Theoretical Visibility within the Wider LVIA Study Area

As seen in Figure 13-1, the surrounding landform provides substantial topographical screening of the Proposed Turbines, creating large areas of no theoretical visibility to south and to the north-east. This is due to the screening created by the elevated peaks at Cullahill Mountain and Knockmannon Hill to the north east and Kyle Hill, Graine Hill, and Drumshane Hill to the south of the Proposed Turbines.

To the east, there is primarily full theoretical visibility along the low-lying River Nore Valley. Within the Nore Valley, key towns such as Freshford and Ballyragget are located and have full theoretical visibility of the Proposed Wind Farm. Overall, following the River Nore from north to south, there is full theoretical visibility within the Nore Valley (considering lands up to approximately 1.5km either side of the Nore River) for a distance of approximately 10km. Further east, beyond the Nore River Valley, the

Castlecomer Plateau has little to no theoretical visibility of the Proposed Turbines due to the high topography of Ballynalacken Hill which forms a physical boundary to the Nore Valley to the northeast of the LVIA Study Area.

Overall, the ZTV shows a greater spread of theoretical visibility to the north, east, and west of the Proposed Turbines, and there will be very limited theoretical visibility from Kilkenny City at the southeastern edge of the LVIA Study Area.

13.3.2.1 On-Site Appraisal of Actual Visibility During Field Surveys

As mentioned previously, the ZTV map is a useful tool to indicate areas where there will be no visibility of the Proposed Turbines. In practice, the elevated siting of the Proposed Turbines on Spa Hill and Clomantagh Hill, while producing a broad zone of theoretical visibility across the LVIA Study Area, does not equate to a comparably broad zone of actual visibility. In actuality, vast areas of the LVIA Study Area which have an indication of full theoretical visibility by the ZTV map (Figure 13-1) are likely to have no visibility of the Proposed Turbines due to visual screening from other above ground features existent within the landscape.

Multiple field surveys were conducted during 2020, 2022, and 2026 to determine the actual visibility from locations where the ZTV has indicated full theoretical visibility. These surveys determined that visual screening from localised undulations in topography, vegetation and man-made elements substantially reduce the likelihood of viewing the Proposed Turbines in vast areas of the LVIA Study Area in areas beyond 5km from the Proposed Turbines.

In most instances, visual screening existent in the gently undulating and highly vegetated landscape beyond 5km from the Proposed Turbines did not permit open views in the direction of the Proposed Turbines. Visibility is only likely to occur in isolated, elevated vantage points where open, long-ranging landscape views in the direction of the Proposed Turbines were found. Representative photomontages were captured from elevated locations where open views towards the Proposed Turbines were found. Visual effects arising from such locations are assessed in Section 13.7 – *Likely Significant Landscape and Visual Effects*.

13.3.3 Visibility in Close Proximity to the Proposed Wind Farm – Route Screening Analysis

A Route Screening Analysis (RSA) was conducted in August 2026 and was carried out on all public roads within 3km of the Proposed Turbines. The RSA radius from the Proposed Turbines was extended to 5km for all regional roads, national roads, and motorways. Local roads which were designated as cycle routes were also assessed to 5km. These local roads include the L-1806, L-1804, L-5000, L-1817, L-5828, L-5932 and the L-5829 which contain portions of 'North Kilkenny Cycle'. Where Local roads continued beyond 3km and regional roads, national roads, and motorways continued beyond 5km from the Proposed Turbines, the RSA survey continued to record the visual screening until encountering an appropriate termination point or junction. It was not possible to carry out RSA on sections of the L1810, L1817, and the L5825 Local Roads (approximately 5.6km in total) that were closed down due to road works on the day the RSA was carried out.

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* (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).



Plate 13-1 Example of 'Little/No' roadside screening along the L1805 Local Primary Road.



Plate 13-2 Example of 'Intermittent/Partial' roadside screening along L18151 Local Tertiary Road.



Plate 13-3 Example of 'Dense/Full' roadside screening along L5000 Local Road.

13.3.3.1 RSA Results

For this LVIA, the distribution of visual screening on 98.9km of public roads was recorded during the RSA survey. The results of the route screening survey are presented below in Table 13-1 and are mapped in Figure 13-4 (below) illustrating the distribution of screening classifications on all roads surveyed.

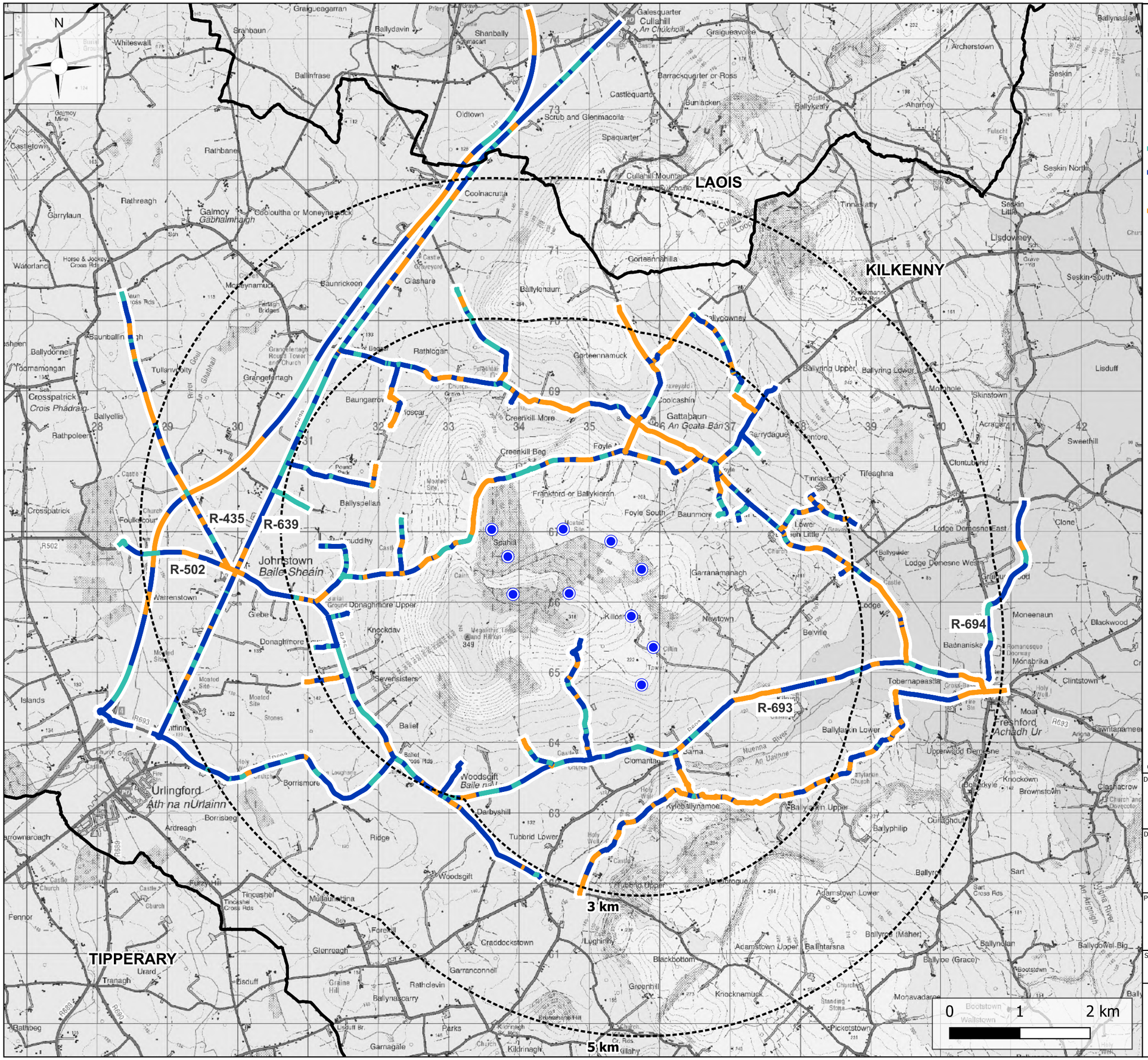
Table 13-1 Route Screening Analysis Results

Screening Class	Length of Road Mapped in Figure 13-4	Percentage Distribution of Screening Class on Surveyed Roads
'Little/None'	17.6km	17.8%
'Intermittent/Partial'	52.3km	52.9%
'Dense/Full'	29.0km	29.3%

The RSA results report the extent and density of visual screening present along the local road network in the immediate vicinity of the Proposed Turbines. 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 site.

Table 13-1 above shows the RSA results of the survey, indicating that more than 80% 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 3km of the Proposed Turbines; refer to Section 13.7.3.2.4 'Visual Effects on Residential Receptors.'

The RSA was conducted in August 2026 when roadside vegetation is full of foliage which influenced the degree of visual screening experienced along the roadside. The degree of visual screening will be lesser in winter months, and this was acknowledged, accounted for and considered by the field surveyors during the RSA exercise. Whilst there is inevitably some degree of subjectivity in the RSA, the overall analysis attempted to ensure the worst-case scenario (in terms of more visibility) was recorded to ensure a balanced approach and the RSA results are representative of experience by visual receptors throughout the seasons.



Map Legend

- RSA Buffers
- County Boundaries
- Proposed Turbines

Route Screening Analysis

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

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Drawing No.

Figure 13-4

Drawing Title

Route Screening Analysis

Project Title

Killoshulan Wind Farm

Scale	Project No.	Date	Drawn By	Checked By
1:52,000	260172	27.10.2026	GL	RS

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13.4 Landscape Baseline

This section of the LVIA establishes the baseline landscape condition of the Site and wider landscape setting of the LVIA Study Area. This includes identification and description of relevant landscape policy designations and sensitive landscape receptors located in the LVIA Study Area. The receiving landscape of the Site and surrounding areas are also described in terms of their landscape character and landscape sensitivity. This section has been informed by desk studies, GIS analysis and site visits and also includes an overview of relevant best practice siting and design guidance for wind farms appropriate to the landscape type of the Site.

13.4.1 Landscape Policy Context

This section provides an overview of local planning policy and identifies landscape and visual protections, designations and spatial zoning for wind energy development relevant to the LVIA of the Proposed Project. The Proposed Project is located in Co. Kilkenny; therefore, the Kilkenny City and County Development Plan 2021-2027 (hereafter 'KCCDP') was the primary document used to inform this exercise.

Other Counties have sensitive landscape and visual designations located in the LVIA Study Area with potential to be impacted by the Proposed Project. Therefore, the policy, protections and designations within the following development plans are given appropriate consideration in this LVIA:

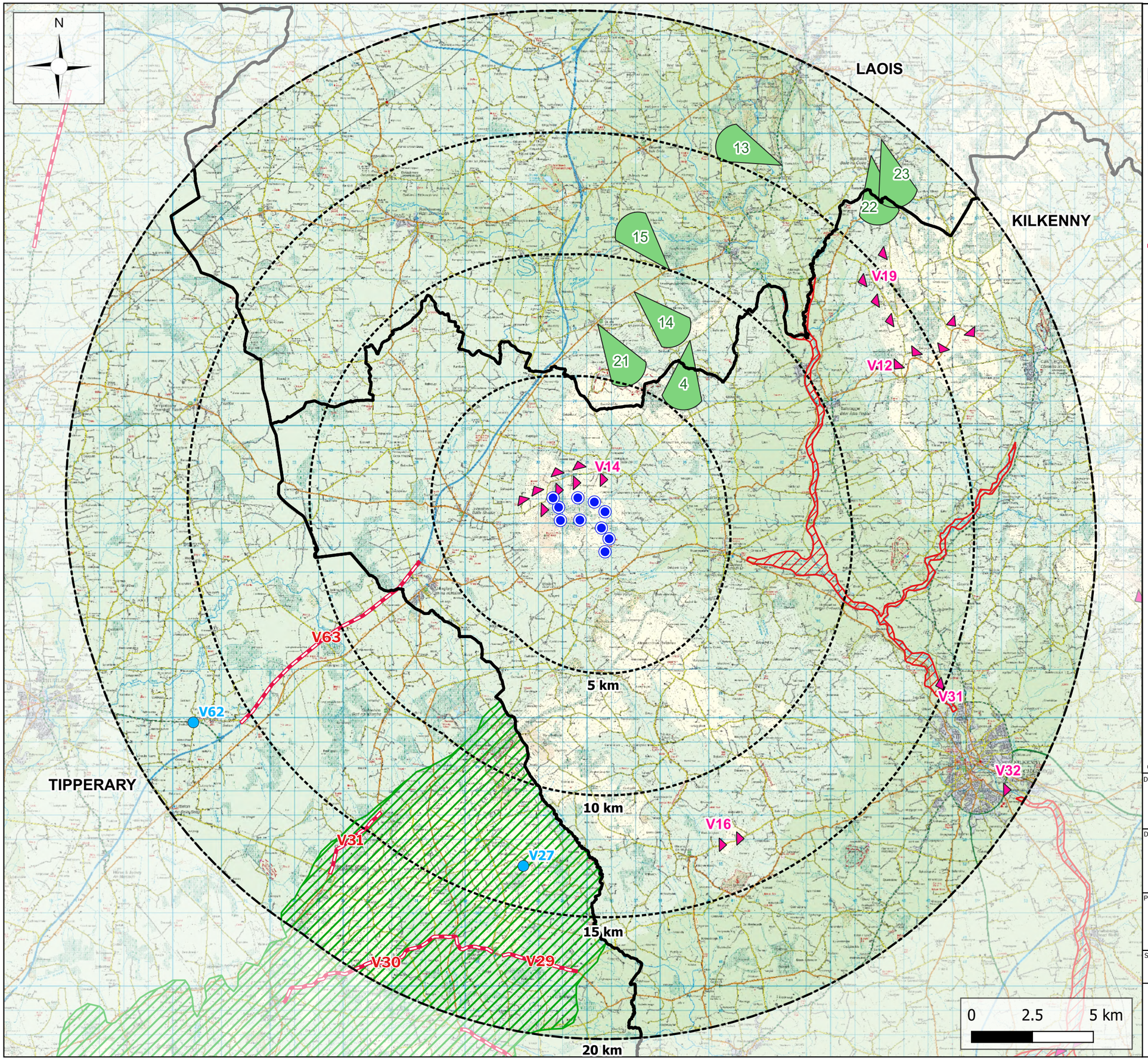
- Laois County Development Plan 2021-2027 (hereafter 'LCDP')
- Tipperary County Development Plan 2022-2028 (hereafter 'TCDP')

General Policy on Landscape Character Assessment Context in Ireland

The landscape baseline and policy review for this LVIA have been informed by the Landscape Character Assessments prepared for relevant County Development Plans identified previously. Landscape character is defined in the GLVIA3 (LI & IEMA, 2013) as "*a distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse*". It reflects the combination of geology, landform, soils, vegetation, land use and settlement that gives each area its distinctive sense of place.

Landscape Character Assessment is the established method for identifying, classifying and describing this variation, and for characterising the value and sensitivity of the landscapes within a given area. Most local authorities in Ireland have prepared county-level assessments, which support the objectives of the National Landscape Strategy 2015–2025 (DoAHG, 2015) and reflect Ireland's commitments under the European Landscape Convention.

The GLVIA3 (LI & IEMA, 2013) distinguishes between Landscape Character Types, which are generic landscape types that may recur in different parts of the country, and Landscape Character Areas (LCAs), which are the single, unique geographical areas of a particular type. County Development Plans differ in the terminology, level of characterisation and approach to landscape sensitivity they apply. These variances are described in the relevant sub-sections below.



Map Legend

- LVIA Study Area
- County Boundaries
- Proposed Turbines

Co. Kilkenny

- Views and Prospects
- Highly Scenic Areas

Co. Tipperary

- Scenic Viewpoints
- Scenic Routes
- Secondary Amenity Area

Co. Laois

- Views and Prospects

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Drawing No.

Figure 13-5

Drawing Title

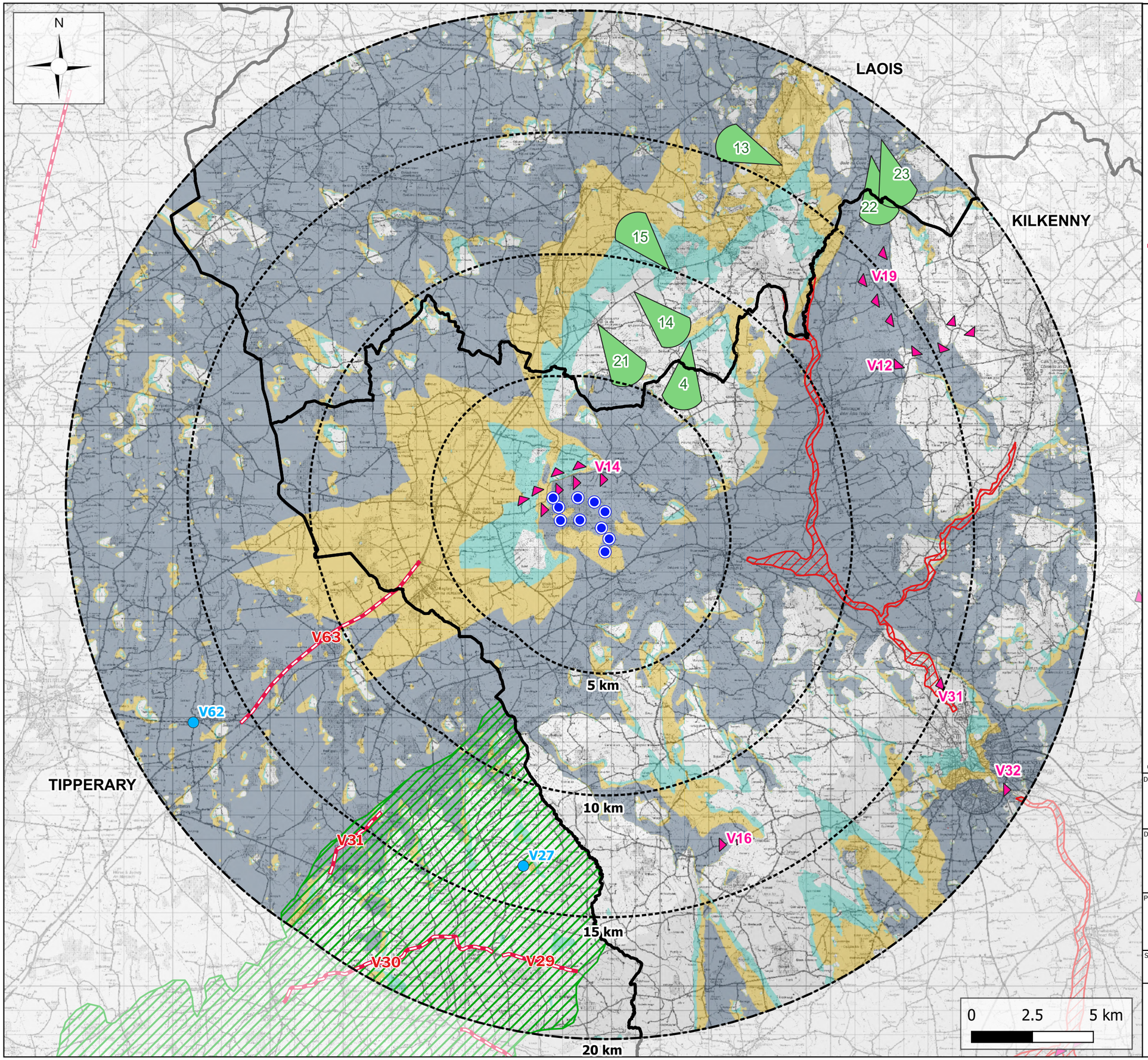
Landscape Policy Context

Project Title

Killoshulan Wind Farm

Scale	Project No.	Date	Drawn By	Checked By
1:150,000	260172	27.10.2026	GL	DM

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Map Legend

- LVIA Study Area
- County Boundaries
- Proposed Turbines

Co. Kilkenny

- Views and Prospects
- Highly Scenic Areas

Co. Tipperary

- Scenic Viewpoints
- Scenic Routes
- Secondary Amenity Area

Co. Laois

- Views and Prospects

Zone of Theoretical Visibility

- 1-3 Turbines Theoretically Visible
- 4-7 Turbines Theoretically Visible
- 8-10 Turbines Theoretically Visible

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Drawing No.

Figure 13-6

Drawing Title

Landscape Policy Context with ZTV

Project Title

Killoshulan Wind Farm

Scale	Project No.	Date	Drawn By	Checked By
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13.4.1.2 Kilkenny City and County Development Plan 2021-2027

Section 9.2.12 of the KCCDP sets out the management and protection of landscape contained within the county, and specifically states that:

> *"...the onus shall be on the developer to satisfactorily demonstrate that such new development can be adequately absorbed into its surrounding landscape without significant adverse visual impacts to its overall landscape value."*

The same section sets out a number of factors for consideration in relation to landscape including Landscape Character Assessment, Landscape Character Types and Areas and Landscape Character Values, as well as Landscape Areas of Highly Scenic and Significant Visual Amenity Value. In addition to these, *Section 9.2.12.6* of the KCCDP outlines the views and prospects designated under the plan. General Development Management Requirements set out in the KCCDP relating to landscape include:

- *"To protect the landscape character, quality and local distinctiveness of County Kilkenny, and have regard to the guidance set out in the Landscape Character Assessment.*
- *Where necessary, to require that applications are accompanied by a visual impact assessment, particularly in upland areas, river valleys and areas of greater sensitivity.*
- *To facilitate appropriate development that reflects the scale, character and sensitivities of the local landscape throughout the county and require that developments minimise the loss of natural features such as trees, hedgerows and stone walls.*
- *To facilitate, where appropriate, developments that have a functional and locational natural resource requirement to be situated on steep or elevated sites (e.g. reservoir, telecommunications or wind energy structures) with reference to the appropriate County strategies currently in place, and to ensure that any residual adverse visual impacts are minimised or mitigated.*
- *To ensure that development in upland areas or on steep slopes will not have a disproportionate or dominating visual impact (due to excessive bulk, scale or inappropriate siting) and will not significantly interfere or detract from scenic upland vistas, or when viewed from public areas, scenic routes, viewpoints or settlements.*
- *To have particular regard to the potential impacts of new development on sensitive upland areas, and to materially consider the difficulty of establishing and maintaining screening vegetation when assessing development proposals in these areas.*
- *To continue to permit development that can utilise existing structures and settlement areas whilst taking account of the local visual absorption opportunities provided by existing topography and prevailing vegetation and to direct new development whenever possible towards the vicinity of existing structures and mature vegetation in the Lowland Areas, River Valleys and Transitional Areas.*
- *To recognise that in the Lowland Areas which are comprised of low-lying open environments, tall and bulky development sometimes can have a disproportionate impact against the landscape particularly when viewed from the predominantly low-lying areas of the public realm. Visually obtrusive and/or insensitive development shall be discouraged in such instances.*
- *To ensure that development in the River Valleys will not adversely affect or detract from either protected views (especially from bridges) or distinctive linear sections of river valleys (especially open floodplains) when viewed from settlements.*
- *To maintain the visual integrity of areas of greater sensitivity in the county and ensure that any development in these areas is appropriately sited and designed. Applicants shall demonstrate that the proposed development can be assimilated into the landscape and will not have a disproportionate visual impact on the landscape."*

The assessment of landscape and visual impacts reported below in Section 13.7 addresses and is cognisant of the specific Development Management Requirements set out above. This LVIA considers the policies above in the identification and assessment of sensitive landscape and visual receptors.

13.4.1.2.1 Co. Kilkenny Landscape Character Assessment

The *Landscape Appraisal of County Kilkenny 2008-2016* (hereafter, LACK) forms the Landscape Character Assessment of Co. Kilkenny. The LACK was originally prepared in 2003 and subsequently published as an appendix to the Kilkenny County Development Plan 2008-2016. Since its initial preparation, the LACK has been carried forward into successive County Development Plans without any apparent review or update to reflect changes in the receiving landscape, or the evolving European and national climate policy and regulatory framework. The LACK continues to form part of the current KCCDP 2022-2028, despite being based on an assessment undertaken nearly two decades ago. Furthermore, unlike the other supporting appendices to the current KCCDP, the LACK is not readily accessible alongside the published Development Plan documentation and must instead be sourced separately through other online portals. Nevertheless, the LACK is still considered in this LVIA for assessment of Landscape Character Areas. Discrepancies between the LACK and the current KCCDP 2022-2028 is discussed further in the following Section - 13.4.1.2.2 County Kilkenny Landscape Sensitivity Discrepancies in the KCCDP / LACK.

The LACK identifies four Landscape Character Types (LCTs) subdivided into 14 Landscape Character Areas (LCAs), see KCCDP Sections 9.2.12.2 and 9.2.12.3. The KCCDP states the following policy:

> *"The Council will protect and sustainably manage the landscape character of County Kilkenny, having regard to the findings of the landscape character assessment and the Development Management Requirements as set out in this chapter for the sustainable development of the county and appropriate conservation of its landscape character."*

Landscape Character Types

The four designated LCTs within County Kilkenny are:

- Upland Areas
- Lowland Areas
- River Valleys, and
- Transitional Areas

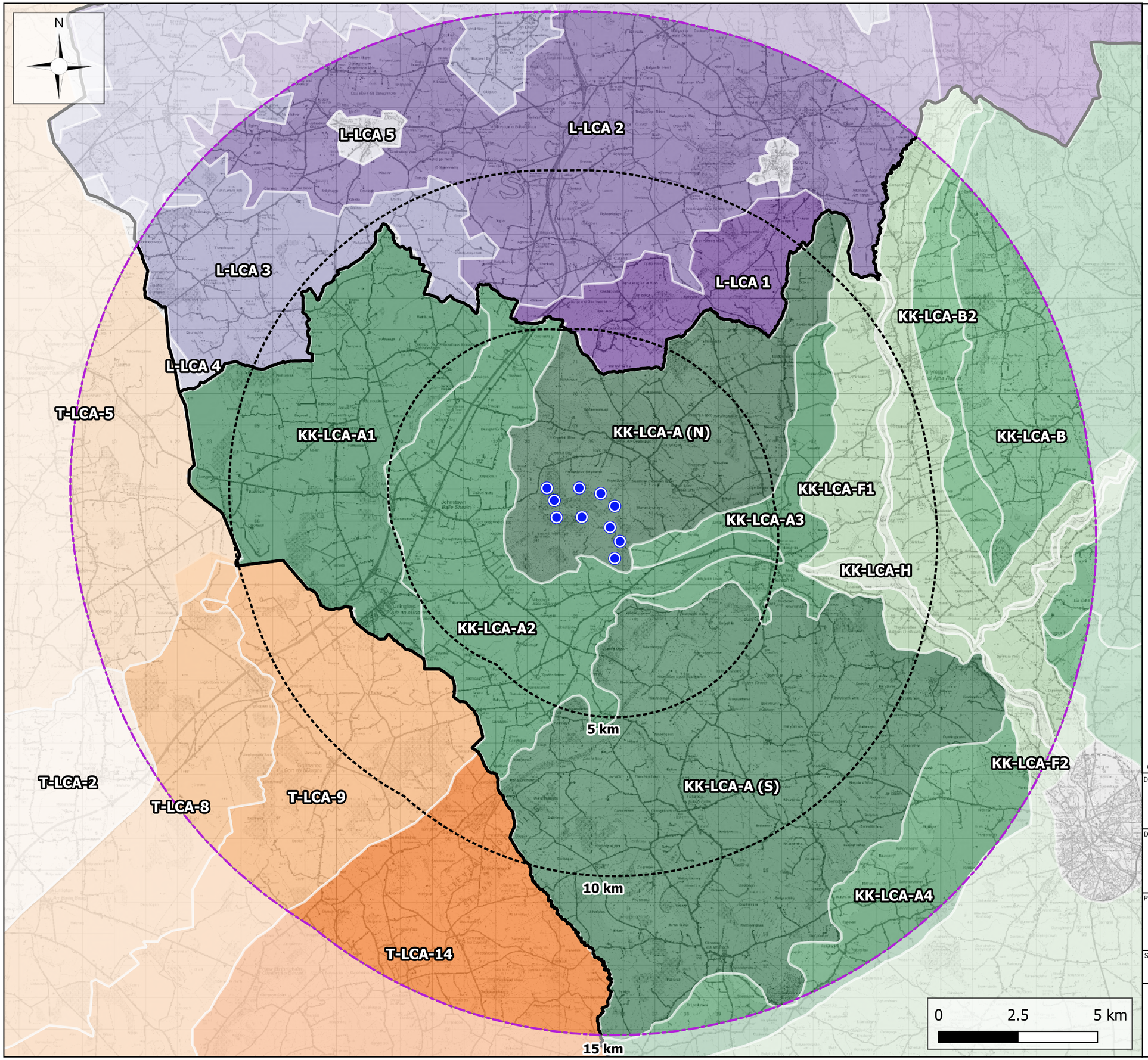
The Proposed Wind Farm is located within lands designated as Upland Areas. The Proposed 110kV Underground Cabling Route forming part of the Proposed Grid Connection passes through a combination of all four LCTs.

Co. Kilkenny Landscape Character Areas

As stated above, the LCTs are subdivided into 14 geographically specific Landscape Character Areas (LCAs). Section 9.2.12.3 of the KCCDP describes LCAs as *"units of the landscape that are geographically specific and have their own character and sense of place."* Some of these LCAs are further subdivided into multiple parts, such as LCA A and LCA A1. In total, there are 23 subdivided LCAs and each of these subdivided LCAs are assessed individually as a separate LCA. These are shown and listed on *Figure 9.2* of the KCCDP. Of these subdivided LCAs, 12 No. of these are located within the LCA Study Area (15km from the Proposed Turbines, see Section 13.2.1 above). These are as follows and are mapped below in Figure 13-7:

- KK-LCA-A (N) – Slieveardagh Hills (North),
- KK-LCA-A (S) – Slieveardagh Hills (South),
- KK-LCA-A1 – Slieveardagh Western Transition Area,

- KK-LCA-A2 – Slieveardagh Central Transition Area,
- KK-LCA-A3 – Slieveardagh Eastern Transition Area,
- KK-LCA-A4 – Slieveardagh Southern Transition Area,
- KK-LCA-B – Castlecomer Plateau,
- KK-LCA-B1 – Castlecomer Southern Transition Area,
- KK-LCA-B2 – Castlecomer Western Transition Area,
- KK-LCA-F1 – Kilkenny Northern Basin,
- KK-LCA-F2 – Kilkenny Western Basin,
- KK-LCA-H – Nore Valley (South)



Map Legend

- LCA Study Area (15km)
- County Boundaries
- Proposed Turbines

Co. Laois LCAs

- L-LCA-1: Mountains, Hills, Upland Areas
- L-LCA-2: Lowland Agricultural Areas
- L-LCA-3: Rolling Hill Areas
- L-LCA-4: Peatland Areas
- L-LCA-5: Urban Fringe Area

Co. Kilkenny LCAs

- KK-LCA-A (N): Slieveardagh Hills (North)
- KK-LCA-A (S): Slieveardagh Hills (South)
- KK-LCA-A1: Slieveardagh Western Transition Zone
- KK-LCA-A2: Slieveardagh Central Transition Zone
- KK-LCA-A3: Slieveardagh Eastern Transition
- KK-LCA-A4: Slieveardagh Southern Transition Zone
- KK-LCA-B: Castlecomer Plateaux
- KK-LCA-B1: Castlecomer Southern Transition Zone
- KK-LCA-B2: Castlecomer Western Transition
- KK-LCA-F1: Kilkenny Northern Basin
- KK-LCA-F2: Kilkenny Western Basin
- KK-LCA-H: Nore Valley (South)

Co. Tipperary LCAs

- T-LCA-2: Thurles Hinterland
- T-LCA-5: Templemore Plains
- T-LCA-8: Littleton Raised Bog
- T-LCA-9: Littleton Farmland Mosaic & Marginal Peatland
- T-LCA-14: Slieveardagh Hills Farmland Mosaic

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Drawing No.

Figure 13-7

Drawing Title

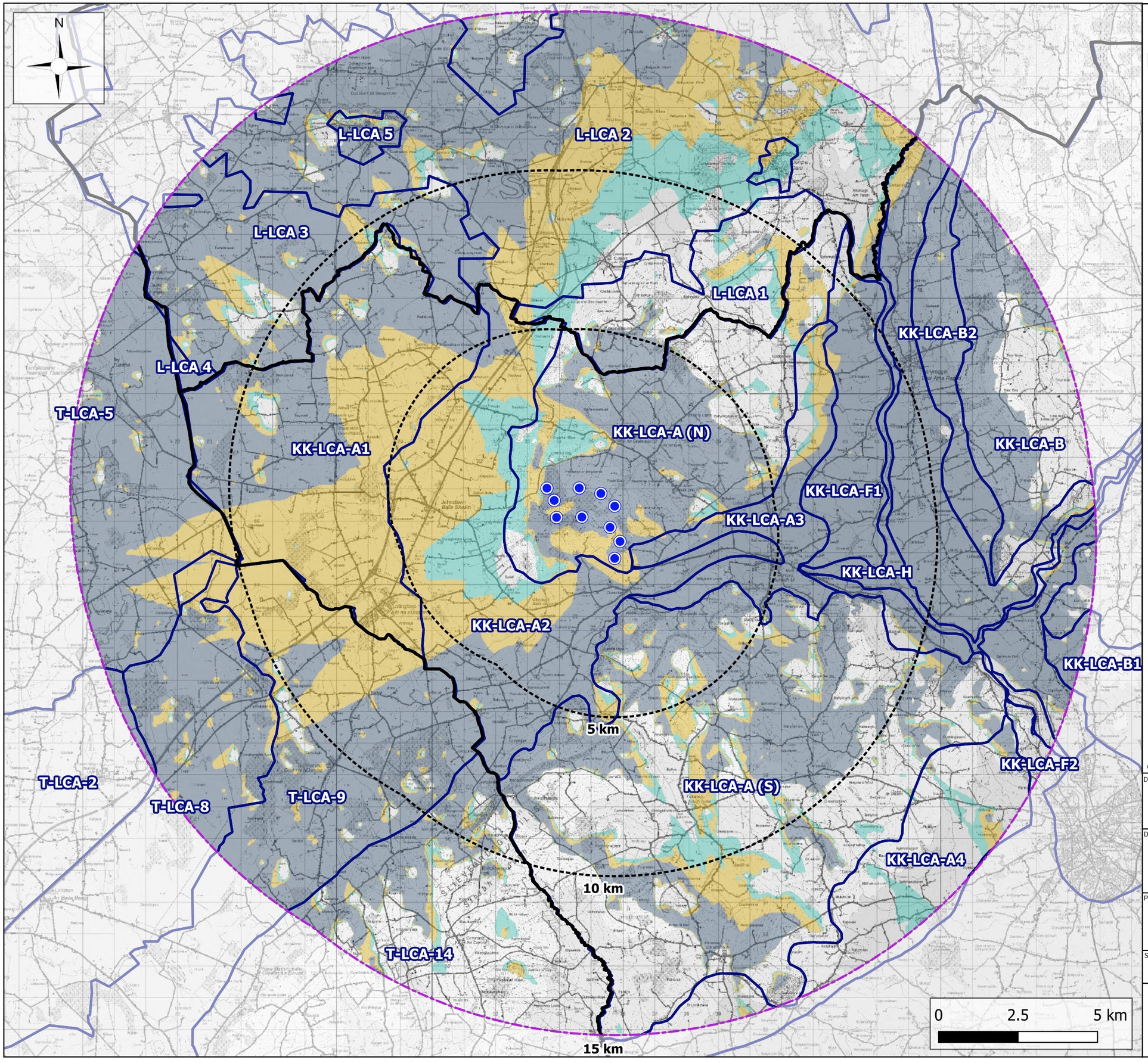
Landscape Character Areas

Project Title

Killoshulan Wind Farm

Scale	Project No.	Date	Drawn By	Checked By
1:115,000	260172	27.10.2026	GL	DM

MKO Planning and Environmental Consultants



Map Legend

- LCA Study Area (15km)
- County Boundaries
- Proposed Turbines

Co. Laois LCAs

- L-LCA 1: Mountains, Hills, Upland Areas
- L-LCA 2: Lowland Agricultural Areas
- L-LCA 3: Rolling Hill Areas
- L-LCA 4: Peatland Areas
- L-LCA 5: Urban Fringe Area

Co. Kilkenny LCAs

- KK-LCA-A (N) - Slieveardagh Hills (North)
- KK-LCA-A (S) - Slieveardagh Hills (South)
- KK-LCA-A1 - Slieveardagh Western Transition Zone
- KK-LCA-A2 - Slieveardagh Central Transition Zone
- KK-LCA-A3 - Slieveardagh Eastern Transition
- KK-LCA-A4 - Slieveardagh Southern Transition Zone
- KK-LCA-B - Castlecomer Plateaux
- KK-LCA-B1 - Castlecomer Southern Transition Zone
- KK-LCA-B2 - Castlecomer Western Transition
- KK-LCA-F1 - Kilkenny Northern Basin
- KK-LCA-F2 - Kilkenny Western Basin
- KK-LCA-H - Nore Valley (South)

Co. Tipperary LCAs

- T-LCA-2: Thurles Hinterland
- T-LCA-5: Templemore Plains
- T-LCA-8: Littleton Raised Bog
- T-LCA-9: Littleton Farmland Mosaic & Marginal Peatland
- T-LCA-14: Slieveardagh Hills Farmland Mosaic

Zone of Theoretical Visibility

- 1-3 Turbines Theoretically Visible
- 4-7 Turbines Theoretically Visible
- 8-10 Turbines Theoretically Visible

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Drawing No.

Figure 13-8

Drawing Title

Landscape Character Areas with ZTV

Project Title

Killoshulan Wind Farm

Scale	Project No.	Date	Drawn By	Checked By
1:115,000	260172	27.10.2026	GL	DM

MKO Planning and Environmental Consultants

The 10 No. Proposed Turbines are located within the southern extent of the Slieveardagh Hills (North) LCA (hereafter referred to as KK-LCA-A (N)). The LACK goes on to describe LCA A (collectively) as follows:

> *"The Slieveardagh Uplands (Hills) are located in the northwest of County Kilkenny and extend into the neighbouring County of Tipperary. The undulating hills situated within County Kilkenny lie to the west of the Nore Valley and to the north of the Kilkenny basin.*
>
> *At the south hills, the terrain slopes from the Nore Valley to the highest point of 333m above sea level near the village of Ballybeagh.*
>
> *The elevated nature of this physical area provides a defined skyline with scenic views over southwest Kilkenny and the neighbouring county of Tipperary.*
>
> *Although this area is generally perceived as having no significant landscape value (refer to Document 2), the northern hills are perceived as having certain ecological and scenic value. The zone is also perceived as having development potential."*

The LACK lists six 'Critical Landscape Factors' for KK-LCA-A (collectively) which are fully considered as part of the impact assessment outlined in *Appendix 13-2: LCA Assessment Tables* and discussed in Section 13.7 for each of the Proposed Turbines.

> *"**Elevated Vistas:** As a result of the elevated road level and the lack of tall vegetation, there are long distance views towards the Kilkenny Lowlands and the Castlecomer Plateau.*
>
> ***Slopes:** Sloping land often provides an area with its character and offers a potentially increased elevation, intensifying the visual prominence of any feature over greater distances, as in the case of the Slieveardagh Hills. Slope also provides an increased opportunity for development to penetrate primary and secondary ridgelines when viewed from lower areas of the public realm such as the roads and population centres in this area.*
>
> ***Prominent Ridgelines:** These occur as either primary ridgelines (visible only against the sky from any prospect) or secondary ridgelines (visible at least from some prospects below a distant primary ridge line). In this upland environment of the Slieveardagh Hills, nearly all ridgelines are primary when viewed from the lowland areas. Ridge lines perform the important roles of providing an area with its identity, acting as dominant landscape focal points, and defining the extent of visual catchments. Therefore, the main concern for the natural linear features formed by the ridgelines of the Slieveardagh Hills is to avoid penetration by development that will interrupt and reduce the integrity of such elements.*
>
> ***Undulating Topography:** Gently undulating topography is presented within the upland area of this character unit. The physical shielding of a built form within the lee of hill where it does not break the skyline renders it visually unobtrusive and reflective of landscape scale. Furthermore, the dynamic and complex nature of undulating land encloses vistas and helps to provide a realistic scale and visual containment not available in open lands.*
>
> ***Low Vegetation:** Low vegetation, represented in this unit by grassland, moorland and generally low hedgerows, is generally uniform in appearance, failing to break up vistas and allowing long distance visibility, and therefore, providing an inability to absorb development.*
>
> ***Shelter Vegetation:** Shelter vegetation, represented in certain areas of this unit by coniferous plantations and broadleaved woodlands, provides visual screening, enclosing vistas and helping to provide a visual containment not available in open, low-vegetation lands."*

The landscape impacts arising from wind energy development is unique compared to other development types on account of the scale and form of wind turbines. Not all landscape types can effectively accommodate commercial wind turbines and therefore the concept of landscape capacity, and factors contributing to it, such as the critical factors stated above must be considered in this context. Elevated and exposed areas have characteristics which are considered appropriate and acceptable landscapes for the development of wind, as evidenced by the trend and distribution of existing and permitted wind farm developments across Ireland. Foothills comprising marginal upland landscape types such as the Proposed Wind Farm site are typically very robust and appropriate landscapes for accommodating commercial wind farm developments due to characteristics of the receiving landscape (i.e. large scale and separation from receptors; sparse settlement pattern; working landscape of low sensitivity) identified and reported throughout this LVIA. With respect to the critical landscape factors cited above, the positioning of turbines on elevated lands and breaking ridgelines is generally considered acceptable in some landscape types under best practice siting and design guidance for wind energy projects. For example, the Guidelines (2006, DoEHLG) and Draft 2019 Guidelines (DoHPLG, 2019) states the following for siting and designating of wind energy developments in Transitional Marginal Landscape Types; Section 6.9.4, page 59 (the Guidelines (2006, DoEHLG)) and Section 6.10.4, page 111 (Draft 2019 Guidelines (DoHPLG, 2019)).

> *"As wind energy developments, for reasons of commercial viability, will typically be located on ridges and peaks, a clear visual separation will be achieved from the complexity of lower ground"*

A full description of the key characteristics and Critical Landscape Factors (as outlined in the LACK) of LCAs scoped in for further assessment below in *Section 13.4.4.2* are included in the LCA impact assessment tables comprising Appendix 13-2.

13.4.1.2.2 Co. Kilkenny Landscape Sensitivity Discrepancies in the KCCDP / LACK

This section reports the landscape sensitivity designations in the KCCDP and the LACK. The LACK was published in 2008 to accompany the 2008 Kilkenny County Development Plan. This LVIA has determined substantial inconsistency between the designations, zoning and assignment of landscape sensitivity in the LACK compared with what is reported in Section 9 of the current KCCDP. However, for completeness, the various designations and content relative of the Proposed Wind Farm site is reported here for background context. Overall, this LVIA gives primary regard to the policy and designations in Section 9 of the current KCCDP.

LACK Landscape Sensitivity Zoning and Designations

Sensitivity Zoning - LACK

Section 5 of the LACK establishes five sensitivity classifications in the 'Sensitivity Zoning Key', these are reported below:

- *"Class 1 – Degraded (Areas Characterised by breakdown of natural process/pollution)*
- *Class 2 – Robust (Areas of existing development and infrastructure. New development reinforces existing desirable land use patterns).*
- *Class 3 – Normal (A common character type with a potential to absorb a wide range of new developments).*
- *Class 4 – Sensitive (Distinctive character with some capacity to absorb a limited range of appropriate new developments while sustaining its existing character)*
- *Class 5 – Vulnerable (Very distinctive features with a very low capacity to absorb new development without significant alterations of existing character over an extended area)"*

Sections 5.2 to 5.5 of the LACK identify different landscape sensitivity categories associated with the various landscape types. However, the LACK does not explicitly assign a sensitivity category to each individual LCA. As such, regard has been given to Map 14, 'Landscape Sensitivities', to identify the 'Sensitive Landscapes' within the receiving landscape (see extract in Figure 13-9 below). Figure 14 of the LACK identifies the general area surrounding the Proposed Wind Farm as comprising 'Moors and Heathland' and 'Natural Grassland'. However, as discussed in Section 13.4.2, site appraisals undertaken between 2020 and 2026 (>12 years after the publication of the LACK) have determined that the landscape character of the Proposed Wind Farm site itself (and wider LCA) is predominantly characterised by 'Pasture Lands' and 'Coniferous Forest', with the Proposed Wind Farm itself located within marginal foothills within the more upland area of the Slieveardagh Hills. Site appraisals determined that heath does occur within these uplands, but are located outside the Proposed Wind Farm site (please refer to Chapter 6 of this EIAR for more information).

Having regard to the above, the receiving landscape comprises a mixture of landscape types classified as both 'Sensitive' (comprising 'Moors and Heathland' and 'Natural Grassland') and 'Normal' (comprising 'Pasture Lands' and 'Coniferous Forest') under the LACK (see Plate 13-4 below). Furthermore, the Proposed Wind Farm site is located within the foothills of the more upland area of the Slieverdagh Hills, in proximity to and along the foothills of ridgelines, which are identified as a 'Vulnerable Landscape' under the LACK.

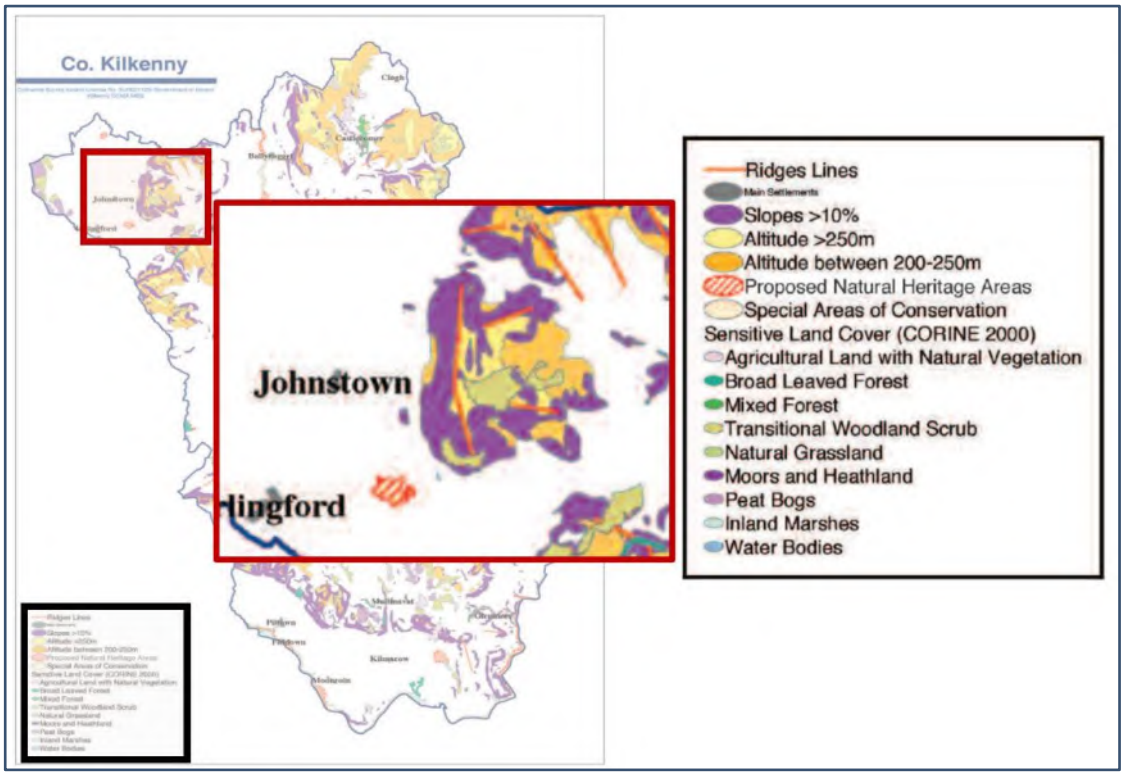
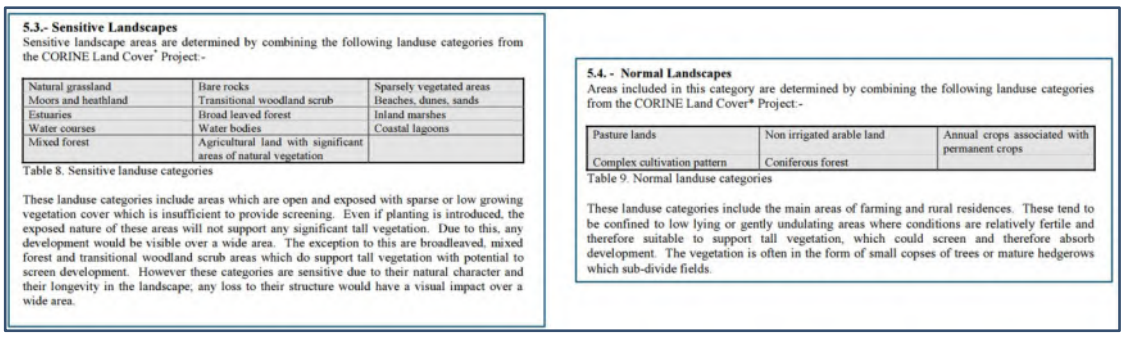


Figure 13-9 Extract from LACK: Figure 14 Landscape Sensitivities



5.3.- Sensitive Landscapes

Sensitive landscape areas are determined by combining the following landuse categories from the CORINE Land Cover* Project:-

Natural grassland	Bare rocks	Sparsely vegetated areas
Moors and heathland	Transitional woodland scrub	Beaches, dunes, sands
Estuaries	Broad leaved forest	Inland marshes
Water courses	Water bodies	Coastal lagoons
Mixed forest	Agricultural land with significant areas of natural vegetation	

Table 8. Sensitive landuse categories

These landuse categories include areas which are open and exposed with sparse or low growing vegetation cover which is insufficient to provide screening. Even if planting is introduced, the exposed nature of these areas will not support any significant tall vegetation. Due to this, any development would be visible over a wide area. The exception to this are broadleaved, mixed forest and transitional woodland scrub areas which do support tall vegetation with potential to screen development. However these categories are sensitive due to their natural character and their longevity in the landscape; any loss to their structure would have a visual impact over a wide area.

5.4. - Normal Landscapes

Areas included in this category are determined by combining the following landuse categories from the CORINE Land Cover* Project:-

Pasture lands	Non irrigated arable land	Annual crops associated with permanent crops
Complex cultivation pattern	Coniferous forest	

Table 9. Normal landuse categories

These landuse categories include the main areas of farming and rural residences. These tend to be confined to low lying or gently undulating areas where conditions are relatively fertile and therefore suitable to support tall vegetation, which could screen and therefore absorb development. The vegetation is often in the form of small copses of trees or mature hedgerows which sub-divide fields.

Plate 13-4 Extract from LACK: Section 5.3 'Sensitive Landscapes' and Section 5.4 'Normal Landscapes'

Area of High Amenity

Table 5 of the LACK identifies Spa Hill as being an 'Area of High Amenity' which is a designation given to areas which are considered to have *"outstanding natural beauty and/or a unique interest value."* There is **no** mention of this designation in the current Kilkenny City and County Development Plan 2021-2027.

KCCDP Landscape Sensitivity Zoning and Designations

Landscape Areas of Highly Scenic and Significant Visual Amenity Value

Certain LCAs in County Kilkenny are designated and defined as areas of 'Highly Scenic and Significant Visual Amenity Value'. *Section 9.2.12.4* of KCCDP notes that:

> *"the special landscape value of several of the Landscape Character Areas illustrated in Figure 9.2 – in particular Brandon Hill Uplands and the River Valley Areas of the Rivers Nore, Barrow and Suir have been identified as being highly scenic and visually pleasing, and as having significant visual amenity value and tourism potential within the county."*

The KCCDP notes that these are illustrated in Figure 9.3 as *"Highly Scenic"* and *"Visually Pleasing"*, however, these are not shown on Figure 9.2. See reproduced map below in Plate 13-5. For the purpose of this LVIA, the Highly Scenic and Significant Visually Amenity Areas are considered to be *"Brandon Hill Uplands and the River Valley Areas of the Rivers Nore, Barrow and Suir"*, as quoted above.

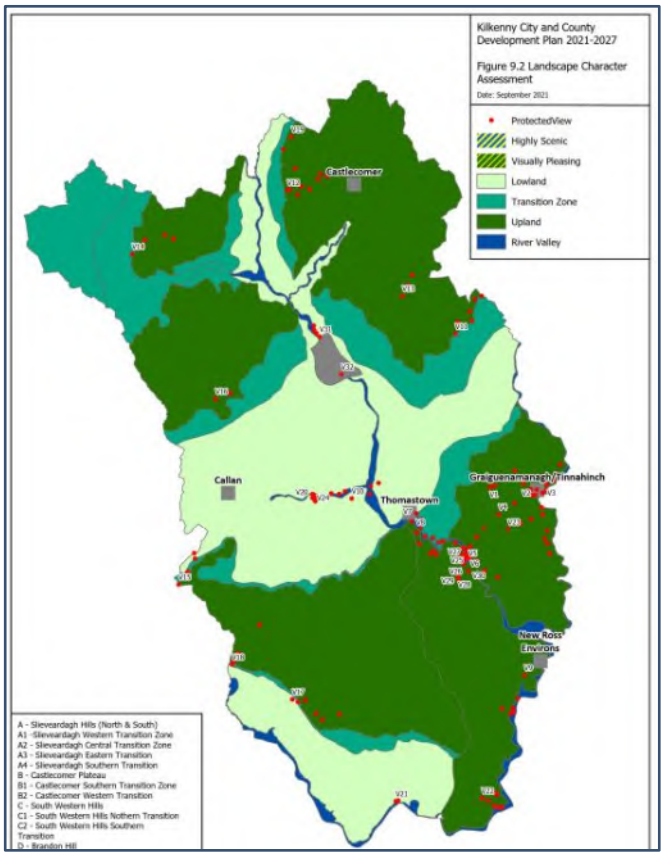


Plate 13-5 Extract from KCCDP - Figure 9.2

The KCCDP contains the following Development Management Requirement related to the areas identified above;

> *"To ensure that development within the Landscape Character Areas of Brandon Hill Uplands and the River Valleys of the Nore, Barrow and Suir, which are highly scenic and visually pleasing, and of significant visual amenity value, are carefully sited and designed and can be successfully assimilated into the landscape."*

The Proposed Turbines are not located within any LCAs identified as having *"significant visual amenity value"*. Therefore, the Proposed Turbines will not directly alter the physical fabric of these LCAs.

There is only one Highly Scenic and Significant Visually Amenity Area within the LVIA Study Area. KK-LCA-H: Nore Valley (South) is located approx. 5.7km from the nearest Proposed Turbine (T02) at its closest point. The Proposed 110kV Underground Cabling Route will cross under the River Nore via horizontal directional drilling (HDD) to reach the Ballyragget 110kV substation. The impact of the Proposed Project on this LCA is comprehensively assessed later in this LVIA in Section 13.7.

'Areas of Greater Sensitivity' / 'Sensitive Landscape Features'

Section 9.2.12.5 of the KCCDP describes the sensitivity of LCAs as *"its overall resilience to sustain its character in the face of change and its ability to recover from loss or damage to its components"*.

Section 9.2.12.5 of the KCCDP continues to identify areas throughout the county that are highly sensitive to development and have a limited capacity to change (i.e. called 'Areas of Greater Sensitivity' in the KCCDP), noting that these areas: *"take account of areas of higher altitude in the county and of land cover. In general areas of elevated topography, with low growing or sparse vegetation and little existing development are landscapes of high sensitivity and have a low potential to absorb new development."*

Section 4.2.2 of Appendix K (Wind Energy Development Strategy) of the KCCDP, discussed further in Section 13.4.1.2.4, identifies the same 'Areas of Greater Sensitivity', although these are referred to as 'Sensitive Landscape Features' within Appendix K. Section 4.2.2 of Appendix K notes that *"In some areas, where sensitivity arises because of altitude or steepness, a closer focus on features will reveal that the most sensitive area may be the environs of a prominent ridge line, or visibility from a main settlement"* and continues to state that the highest landscape sensitivity arises from a combination of *"elevated steep-sided ridgelines, Slopes in excess of 10% and altitudes in excess of 200m"*.

These features are mapped on Figure 9.3 'Landscape Sensitivities' in the KCCDP, reproduced in Figure 13-10 below showing the location of the Proposed Wind Farm site within Figure 9.3 of KCCDP.

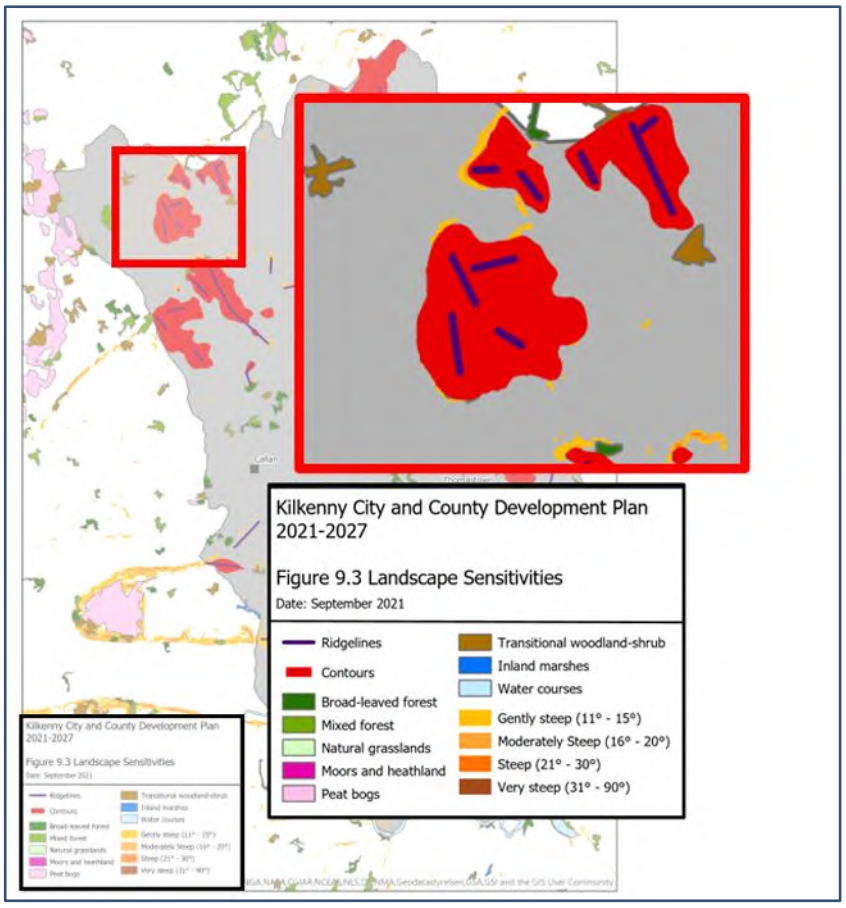


Figure 13-10 Extract from KCCDP: Figure 9.3 Landscape Sensitivities

Section 4.2.2 also notes that (emphasis in bold):

> *"The mapping of the sensitivity of these areas and features* ***should not be viewed as a prohibition on development****, however the visual impact of any large-scale wind energy development in proximity to these features of sensitivity needs to be addressed in a Landscape Impact Assessment report."*

As seen in Figure 13-10 above, the Proposed Turbines are situated near contours, ridgelines, and gently steep landscape areas. Some surrounding land, which encloses the Proposed Turbines, has altitudes exceeding 200 meters and would therefore be considered as designated 'Sensitive Landscape Feature' / 'Area of Greater Sensitivity' in the context of the KCCDP.

As detailed in Section 13.4.2, and throughout this chapter, from an LVIA perspective, such elevated upland landscapes, including marginal foothill landscapes such as the Proposed Wind Farm site, are generally considered capable of accommodating commercial wind energy development due to their large scale, sparse settlement patterns and relatively low landscape sensitivity to wind energy development. Furthermore, the Proposed Wind Farm site contains extensive areas of commercial coniferous forestry, and the surrounding landscape is subject to existing wind farm development within 5km on the same 'Sensitive Landscapes' (Lisdowney Wind Farm). Therefore, the characteristics generally associated with areas of greater sensitivity, namely elevated topography with low-growing or sparse vegetation and little existing development, do not fully align with the landscape character of the Proposed Wind Farm site.

Nevertheless, this LVIA recognises the landscape sensitivities associated with these ridgelines, which have been considered as part of the assessment presented in Section 13.7, 'Likely Significant Landscape and Visual Effects'.

KCCDP and LACK Landscape Sensitivity Inconsistencies Overview

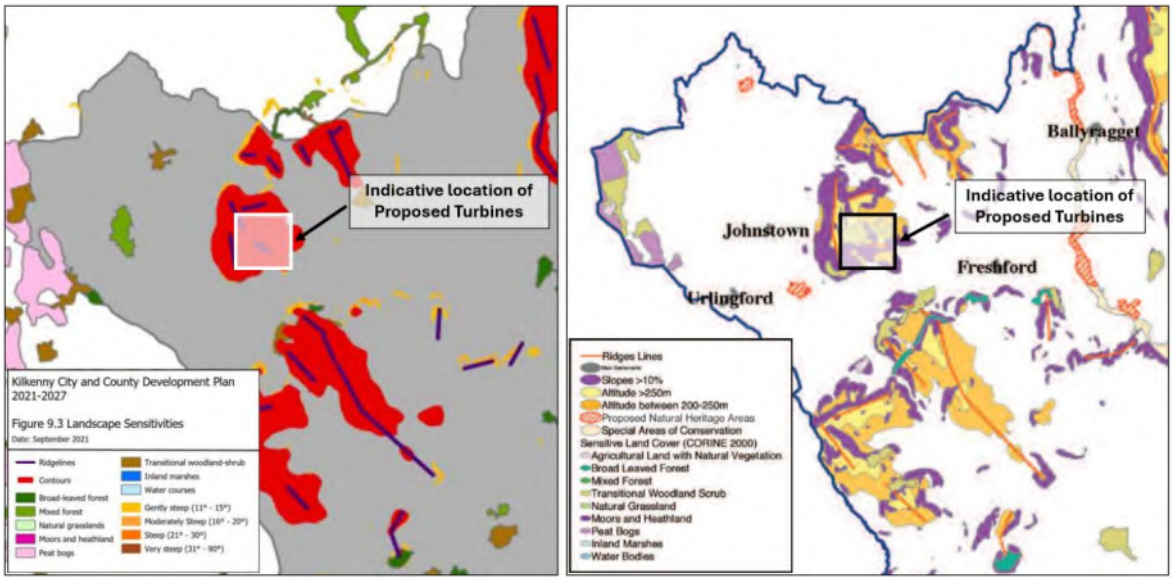


Figure 13-11 Adapted Landscape Sensitivity maps from the KCCDP 2021-2027 (left) and LACK (right)

As illustrated in Figure 13-11, there are notable differences between the landscape sensitivity designations presented in the LACK (2008) and the current KCCDP (2021–2027), particularly in the vicinity of the Proposed Wind Farm site. A summary of key differences is provided below:

- As established through site appraisals undertaken between 2020 and 2026 (>12 years post the publication of the LACK), the receiving landscape comprises a mixture of different landscape types, including upland moorland, pasture lands and extensive commercial coniferous forestry, which is not reflected in the landscape designations in the LACK.
- Spa Hill is identified as an AHA in the LACK, whereas no equivalent designation is identified in the current KCCDP.
- Neither Spa Hill nor Clomantagh Hill is specifically identified as an area of 'Highly Scenic and Significant Visual Amenity Value' in the current KCCDP.
- Neither Spa Hill nor Clomantagh Hill is identified as an 'Archaeological Landscape' in the current KCCDP (see the following section – Section 13.4.1.2.3 for further information).

Notwithstanding these differences, both the LACK and KCCDP recognise the landscape sensitivity associated with prominent ridgelines. As discussed previously, the large-scale upland landscape, sparse settlement pattern, extensive commercial forestry and presence of existing wind energy development are characteristics which contribute to the capacity of the receiving landscape to accommodate commercial wind energy development.

As reported later in Section 13.4.2 'Landscape Character and Sensitivity of the Proposed Wind Farm site', field visits and assessments determined that both Spa Hill and Clomantagh Hill comprise predominantly modified working landscapes characterised by commercial coniferous forestry, pasture lands and upland moorland. Aside from the identified archaeological sensitivities associated with the hillfort (which are assessed separately in Chapter 14 of this EIAR), the landscape appraisals did not identify any distinctive or exceptional landscape qualities that would distinguish these hills from other comparable upland landscapes, or warrant their recognition as landscapes of county, regional or national renown.

As per best practice LVIA guidance and the methodology used for this assessment (see Section 1.7.2 of the *Appendix 13-1*), landscape sensitivity is derived by combining 'Landscape Value' with its 'Susceptibility to Change'. GLVIA3 recognises that archaeological and cultural heritage receptors can

contribute to landscape value. In this regard, the archaeological sensitivities are considered under 'Landscape Value' in Section 13.4.2.2 Landscape Sensitivity of the Site. 'Ssusceptibility to Change' must consider the nature of the change which is governed by the type of development relative to the receiving landscape. In this regard, and as reported throughout this LVIA, landscape features such as hills are widely considered as landscapes with a high capacity for wind energy development and a lower susceptibility to change than other landscape types and features. Accordingly, whilst the archaeological interests and sensitive ridgeline features are recognised, these do not, in themselves, warrant the classification of Spa Hill and Clomantagh Hill as landscape receptors of High sensitivity. The landscape sensitivities associated with their elevated topography and ridgelines have nevertheless been recognised and considered in the detailed landscape and visual impact assessment presented in Section 13.7.

13.4.1.2.3 KCCDP Archaeological Landscapes

Section 9.3 of the KCCDP defines an archaeological landscape as:

> *'...a natural landscape that has been deliberately modified by a group (or groups) of people during a particular archaeological period (or periods). It provides context and meaning to individual archaeological sites and helps us to understand how our ancestors lived. Such landscapes have the potential to be of cultural, economic, social and/or environmental value.'*

The planning policy in *Section 9.3* of the KCCDP highlights the following policy relevant to archaeological landscapes:

> *'The Council will have regard to the archaeological landscapes associated with the areas listed above in the Plan and may, if considered necessary, require an impact assessment for proposed development which could have a significant impact on the identified landscape.'*

A 2019 report (Preliminary Audit of Archaeological Landscapes in County Kilkenny) identified a base list 18 No. potential archaeological landscapes and Clomantagh Hill was listed as one of them. Based on this report, the KCCDP selected three sites as a priority for protection: Freestone Hill and environs; "*the Lingaun River Valley-specifically the megalithic monuments within it and the relationships between them; Tory Hill and environs"*. None of these three potential archaeological landscape sites are located within 20km of the Proposed Turbines. Furthermore, neither Spa Hill nor Clomantagh Hill are identified among the three proposed archaeological landscapes that are listed as a priority for protection in Section 9.3.1.1 of the current KCCDP. This archaeological interest is acknowledged in this LVIA, and assessed further in Chapter 14 of this EIAR.

13.4.1.2.4 Wind Energy Strategy

The Kilkenny Wind Energy Strategy (WES) is detailed in in Section 11 of the KCCDP - *Renewable Energy* and Appendix K of the KCCDP – Wind Energy Strategy. Section *11.5.2* of the KCCDP states that:

> *"A wind energy strategy has been developed for this plan building on the strategies from previous development plans and having regard to Government policy generally and the Draft Revised Wind Energy Development Guidelines"*

The KCCDP divides the county into three policy areas for the development of wind farms; 'Acceptable in Principle', 'Open to Consideration' and 'Not Normally Permissible' informed by a sieve mapping analysis incorporating landscape and environmental constraints.

The KCCDP outlines that both quantitative and qualitative factors are used to estimate the potential for impact of wind energy developments on the landscape. The KCCDP notes that the *"Planning Authority will use these four elements of landscape impact assessment in considering the potential for impact of proposed wind energy development on the landscape":*

- *"Landscape sensitivity (ranging from very low sensitivity to very high sensitivity)*
- *Visual presence of the wind energy development (ranging from minimal presence to highly dominant)*
- *Aesthetic impact of the wind energy development on its landscape context (ranging from major positive impact to major adverse impact)*
- *Significance of the impact (ranging from insignificant to major)"*

It is important to note that as outlined in detail in Section 2.4.4 of Chapter 2 of the EIAR, the WES is subject to a draft ministerial direction. As the previous County Development Plan has since expired and the wind strategy area named above shall be taken not to have come in effect, the Renewable Energy Polices and Wind Strategy Areas cannot be taken into account. At the time of writing, the development has been assessed in line with the adopted KCCDP as there has been no update on the ministerial direction.

As seen in Figure 13-12 (below), under the WES, 8 No. Proposed Turbines are located within an area designated as 'Not Normally Permissible', with 2 No. Proposed Turbines (turbines T01 and T02) located within an area classified as 'Acceptable in Principle'. Appendix K of the KCCDP describes these designations as follows:

> *"**Acceptable in Principle**: This is the preferred area for wind energy development, characterised by high wind speeds, and no significant conflict with environmental designations or sensitivities.*
>
> ***Not Normally Permissible:** This area is considered to be generally unsuitable for wind farm development. Individual turbines will be considered on a case-by-case basis."*

Sensitive Landscape Features

The KCCDP defines the highest landscape sensitivity as arising from a combination of *"elevated steep-sided ridgelines, slopes exceeding 10%, and altitudes over 200m".* Despite this, within the surrounding area, peaks exceeding 200m within the 'Acceptable in Principle' area have already been deemed suitable for wind energy development. In contrast, areas classified as 'Open to Consideration' are at significantly lower elevations and feature less prominent ridgelines compared to those in the 'Acceptable in Principle' areas.

The Proposed Turbines are not located on the ridgelines but on the eastern slopes of Spa Hill and Clomantagh Hill with T01 and T02 situated at an elevation of approximately 200m. As mentioned in the previous section, from an LVIA perspective it is deemed advantageous to have Proposed Turbines enclosed within these ridgelines as it provides screening, along with the commercial forestry that exists on the Site.

Archaeological Landscapes

Spa Hill and Clomantagh Hill are identified within the WES exclusion criteria due to their inclusion in the Preliminary Audit of Archaeological Landscapes. However, neither hill was selected as a priority archaeological landscape in the current KCCDP. From an LVIA perspective, as established previously, the large-scale upland character, modified working landscape, extensive commercial forestry and sparse settlement pattern are characteristics which contribute to the capacity of the receiving landscape to accommodate commercial wind energy development.

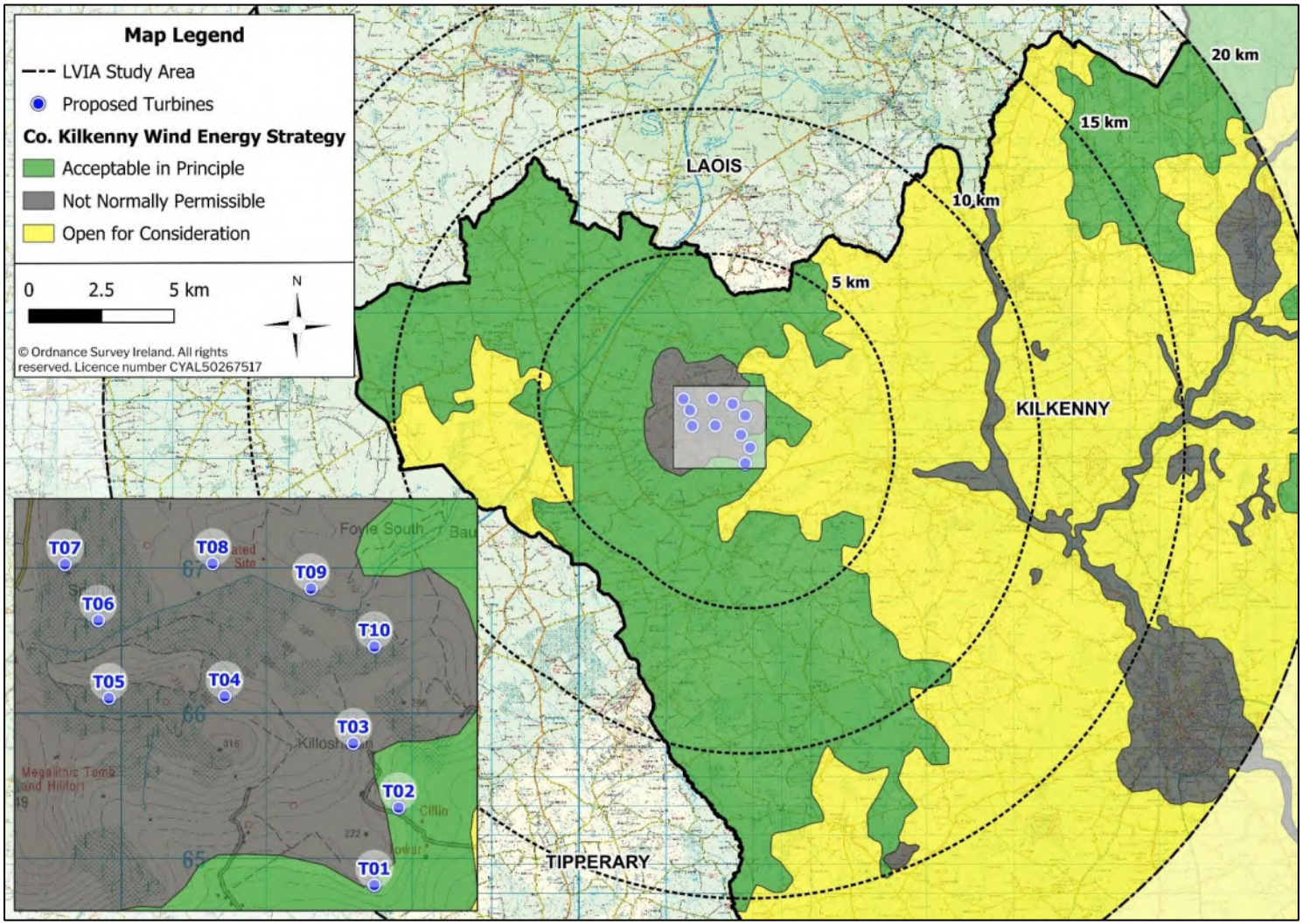


Figure 13-12 Wind Energy Strategy designations of Co. Kilkenny per the KCCDP

13.4.1.2.5 Co. Kilkenny Scenic Views and Prospects

Section 9.2.12.6 of the KCCDP states the following policy for designated scenic views of Co. Kilkenny:

> *"There is a need to protect and conserve views and prospects adjoining public roads and river valleys throughout the county where these views are of high amenity value. In conserving views, it is not proposed that this should give rise to the prohibition of development along these routes but development, where permitted, should not seriously hinder or obstruct these views and should be designed and located to minimise their impact."*
>
> *"Scenic Views are designated in the Development Plan, and these views are also considered to be extremely sensitive to wind energy development, however these will be assessed on a case-by-case basis in accordance with the Development management standards".*

The KCCDP also contains the following Development Management Requirements related to designated views and prospects:

> *"The Council will preserve and support the improvement of places or areas from which views or prospects of special amenity value exist."*
>
> *"To ensure that development in the River Valleys will not adversely affect or detract from either protected views (see Appendix H) (especially from bridges) or distinctive linear sections of river valleys (especially open floodplains) when viewed from settlements.*

6 No. KCCDP Scenic Views in Co. Kilkenny were identified in the 20km LVIA Study Area and are reported in Table 13-2 below. These scenic designations are of a visual nature and therefore represent visual receptors; they are mapped and analysed in Section 13.5 Visual Baseline.

Table 13-2 Co. Kilkenny Designated Views and Prospects located in the LVIA Study Area

Development Plan Reference No.	Description (from KCCDP)	Map Reference
V12	*"Views overlooking Castlecomer and Ballyragget on the Castlecomer/Ballyragget Road (R694) between its junctions with road nos. LT5852 and LT5847."*	KK-SV-12
V14	*"Views north and east on the Johnstown/Gattabaun Road No. LP1805 between junctions with Road nos. LT18054 and LT18056."*	KK-SV-14
V16	*"View East towards Kilkenny City on the Kilkenny/Kilmanagh Road No. LP 1011 between the junction with road nos. LT10111-4 and LT10112-10."*	KK-SV-16
V19	*"View west towards the Slieve Bloom Mountains on road no's LS5840 and LS5839 from the junction with road nos. LS5839 and LS5846 (Ballymartin Cross Roads)."*	KK-SV-19
V31	*"Panoramic view of River Nore Valley from Bleach Road."*	KK-SV-31

V32	*"View of River Nore Valley to east from Ossory Bridge."*	KK-SV-32

13.4.1.3 Landscape Policy within the Other Surrounding Counties

While the Proposed Project is located in Co. Kilkenny, Counties Tipperary and Laois are also located within the LVIA Study Area. Therefore, relevant designations pertinent to the LVIA conducted in this chapter are identified and listed below from the following County Development Plans:

- Tipperary County Development Plan 2022-2028
- Laois County Development Plan 2021-2027

13.4.1.3.1 *Landscape Character Areas*

The impact assessments on designated LCAs (See *Appendix 13-2*) uses an LCA Study Area of 15km from the Proposed Turbines (as detailed previously in Section 13.2.2).

Co. Tipperary LCAs

The Landscape Character Assessment for Tipperary (Volume 3, Appendix 3 of the TCDP) (hereafter referred to as the LCAT) identifies three landscape designations for County Tipperary:

- **Landscape Archetypes** – Termed 'Generalised Landscape Character Areas' includes four High level landscape classifications across the county, which are further sub-divided into Landscape Character Types;
- **Landscape Character Types** – This designation includes seven different landscape type classifications, which are further subdivided into Landscape Character Areas.
- **Landscape Character Areas (LCAs)** – 23 No. designated LCAs defined in mind of the specific landscape characteristics which give each area a unique identity.

The LCAs (shown on Figure 1 in Appendix 3 of the TCDP) which are located within the 15km LCA Study Area are listed below:

- **T-LCA-2: Thurles Hinterland** (designated as Low sensitivity to change in *Section 5.2* of *Appendix 3*.)
- **T-LCA-5: Templemore Plains (**designated as Low sensitivity to change in *Section 5.2* of *Appendix 3*.)
- **T-LCA-8: Littleton Raised Bog** (designated as High sensitivity to change in *Section 5.2* of *Appendix 3*.)
- **T-LCA-9: Littleton, Farmland Mosaic and Marginal Peatland** (designated as Low sensitivity to change in *Section 5.2* of *Appendix 3*.)
- **T-LCA-14: Slieveardagh Hills Farmland Mosaic** (designated as Moderate sensitivity to change in *Section 5.2* of *Appendix 3*.)

Tipperary LCAs scoped in for further assessment are listed in Section 13.4.4.1 below and are assessed in Appendix 13-2: LCA Assessment.

Section 11.9 of the TCDP contains the following general policy objectives relating to landscape;

> ***"11-16** Facilitate new development which integrates and respects the character, sensitivity, and value of the landscape in accordance with the designations of the Landscape Character Assessment, and the schedule of Views and Scenic Routes (or any review thereof). Developments which would have a significant adverse material impact on visual amenities will not be supported"*

*"**11-17** Ensure the protection of the visual amenity, landscape quality and character of designated 'Primary' and 'Secondary' amenity areas. Developments which would have a significant adverse material impact on the visual amenities of the area will not be supported. New development shall have regard to the following:*

a) *Developments should avoid visually prominent locations and be designed to use existing topography to minimise adverse visual impact on the character of primary and secondary amenity areas.*
b) *Buildings and structures shall integrate with the landscape through careful use of scale, form, and finishes.*
c) *Existing landscape features, including trees, hedgerows and distinctive boundary treatment shall be protected and integrated into the design proposal."*

Co. Laois LCAs

Appendix 6 of the Laois County Development Plan 2021–2027 (LCDP) forms the Landscape Character Assessment for Co. Laois. Chapter 11 of the LCDP identifies 6 No. LCAs fall within the 15km LCA Study Area. These are not numbered in the LCDP, for the purpose of this LVIA, they have been numbered – 1 to 6 as below:

- **L-LCA-1:** Mountains, Hills and Uplands,
- **L-LCA-2:** Lowland Agricultural Areas,
- **L-LCA-3:** Rolling Hills Areas,
- **L-LCA-4:** Peatlands,
- **L-LCA-5:** Urban Fringe Areas,
- **L-LCA-6:** River Corridors and Lakes.

All LCAs occur within the 15km LCA Study Area. It is noted that L-LCA-6 River Corridors and Lakes comprises linear map features following river corridors and does not comprise a geographical land area boundary suitable for assessment, thus L-LCA-6 is not included in the LCA preliminary analysis in Section 13.4.4.1 below.

Laois LCAs scoped in for further assessment are listed in Section 13.4.4.1below and are assessed in Appendix 13-2 LCA Assessment.

Section 11.10 of the LCDP provides four policy objectives for the LCAs of Co. Laois primarily regarding land areas of high sensitivity:

*"**Objective LCA 1:** Ensure that consideration of landscape sensitivity, as indicated in Table11.6 of the Plan, is an important factor in determining development uses in areas of high landscape sensitivity, the design, type and the choice of location of proposed development in the landscape will also be critical considerations.*

Objective LCA 2: *Protect and enhance the county's landscape, by ensuring that development retains, protects and, where necessary, enhances the appearance and character of the existing local landscape and conserve valuable habitat including any European and National Designations.*

Objective LCA 3: *Seek to ensure that local landscape features, including historic features and buildings, hedgerows, shelter belts and stonewalls, are retained, protected and enhanced where appropriate, so as to preserve the local landscape and character of an area, whilst providing for future development.*

Objective LCA 4: *Seek to minimise the individual and cumulative adverse visual impacts that local concentrations of one-off housing, outside of settlements, may have on Hills and Upland,*

River Corridor and Lakes and Mountain landscape character areas or High Sensitivity areas. In this regard, in locations where the Council considers that there is a risk of individual or cumulative adverse impacts, the Council will only consider proposals for housing developments where a need for the dwelling has been demonstrated in accordance with the criteria contained in the Rural Housing Policy contained in Chapter 4.

13.4.1.3.2 Sensitive Landscape Designations

Co. Tipperary - Primary and Secondary Amenity Areas

Section 11.7.1 of the TCDP states the following in relation to Primary and Secondary Amenity Areas:

> *"Having consideration to the LCA and the overriding objectives of the Plan, the Council has designated 'Primary' and 'Secondary' amenity areas (Figure 11.1), which include, amongst others, Lough Derg, and the Glen of Aherlow/Galtee Mountains. These areas are particularly notable by virtue of their scenic and visual quality and offer significant opportunities for tourism development and rural recreational activities. The Council will seek to ensure that a balance is achieved between the protection of sensitive landscapes and the appropriate socio-economic development of these areas. In this respect, development proposals will be required to demonstrate that they integrate and respect the visual quality of the amenity area."*

There is one Secondary Amenity Area located within the LVIA Study Area which is shown in Figure 13-5 above. The Slieveardagh Hills Secondary Amenity Area is located approximately 6.3km southwest of the nearest Proposed Turbine (T01) at its closest point and comprises a large area within this part of the LVIA Study Area. However, as seen in Figure 13-6, there is primarily no theoretical visibility within this Secondary Amenity Area. Where visibility may potentially occur from elevated vantage points, the Proposed Turbines will be seen in the background of views. Significant effects on the character of this sensitive landscape receptor is not likely to occur, and therefore it has been scoped out from assessment.

Co. Laois – Sensitive Areas

The LCDP states that the Landscape Character Assessment for County Laois identifies specific areas characterised as sensitive landscapes, noting that:

> *"Sensitive areas include upland areas, visually open and expansive areas and areas in the vicinity of natural heritage or built heritage assets or scenic views."*

The landscapes of 'High' sensitivity include *"Peatlands, River Corridors and Lakes, Mountain Areas, European Sites".* Based on this, Cullahill Mountain within L-LCA-1 are classed as sensitive landscapes within county Laois that fall within the LVIA Study Area. This area is scoped in for further assessment and is discussed later in Section 13.7 – Landscape and Visual Effects.

13.4.1.3.3 Designated Scenic Views and Routes

Counties Tipperary and Laois protect scenic amenity within their respective counties through the designation of scenic views, prospects, and scenic routes. Both counties have differing naming conventions and policy objectives pertaining to their respective designations. In a general sense, it is a policy objective for each county to take additional care in the protection of the unique and valuable scenic views which fall within the following designations:

- County Tipperary – Scenic Routes and Views
- County Laois – Scenic Views and Prospects

Designated scenic amenity and views from these counties within the LVIA Study Area are mapped in Figure 13-16 and listed in Table 13-3 below.[1]

Table 13-3 Scenic Views, Protected Views, Scenic Routes, and Key Amenity Areas of County Tipperary and County Laois within the LVIA Study Area

Development Plan Reference No.	Description (from respective County Development Plan)	Map Reference
County Tipperary		
V27	*"War House Hill, views east and west."*	T-SV-27
V29	*"Views to the south along road R691."*	T-SR-29
V30	*"Views to the west and south along road R691."*	T-SR-30
V31	*"Views to the west between Glengoole and Ballysloe, along road R689."*	T-SR-31
V62	*"Views from the N75 in Borris, east of Thurles."*	T-SV-62
V63	*"Views from M8 near Longford's Pass."*	T-SR-63
County Laois		
V004	*"Views towards Knockmannon Hill."*	L-SV-04
V013	*"Views over farmland and River Nore."*	L-SV-13
V014	*"Views towards Caponellan Hill."*	L-SV-14
V015	*"Views over farmland and River Goul."*	L-SV-15
V021	*"Views of Cullahill Castle and Knockmannon Hill."*	L-SV-21
V022	*"Views of Mass Lough and of Ballymartin Hill beyond."*	L-SV-22
V023	*"Views over farmland and of Ballymartin Hill."*	L-SV-23

As the scenic amenity designation listed in Table 13-3 (above) are of a visual nature, they are comprehensively addressed in Section 13.5 of this Chapter – Visual Baseline, where ZTV mapping and on-site appraisals determine the likely visibility of the Proposed Turbines within these scenic views or from scenic routes.

13.4.2 Landscape Character and Sensitivity of the Proposed Wind Farm site

'Landscape character' in this case refers to the distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape, and how people perceive this. It reflects particular

[1] *For purposes of clarity, continuity, and reference to mapping figures in this chapter; designated scenic views are labelled 'V' and scenic routes 'SR', each is prefixed by the first letter of the county in which it is located e.g., 'KK' for Kilkenny, 'T' for Tipperary and 'L' for Laois. The last number in each label corresponds to the label or number assigned to each designation in the respective county development plans (e.g., KK-V14 = Kilkenny – Scenic Route No. 14).*

combinations of natural components such as geology, landform, soils, cultural perception, and vegetation with human influence such as land use and human settlement. The identification of landscape character as outlined in the Landscape and Landscape Assessment: Consultation Draft of Guidelines for Planning Authorities' (hereafter, Landscape Assessment Guidance (DoEHLG, 2000)), comprises the identification of primarily physical units (areas defined by landform and landcover) and, where appropriate, of visual units.

The Proposed Wind Farm was visited multiple times during the years 2020, 2022 and 2026 where a preliminary assessment of landscape character was conducted in conjunction with other LVIA surveys. Information gathered during these visits have informed the following descriptions for the Proposed Wind Farm.

This section includes aerial images captured by a drone which are useful tools to illustrate the character, scale, context, and constituent parts of the landscape of the Site. However, it is important to highlight that these aerial images do not represent the views of visual receptors that would be experienced at ground level.



Figure 13-13 Aerial of the Proposed Wind Farm site

The Proposed Wind Farm is located within a remote, rural, sparsely populated, marginal upland landscape characterised by a mosaic of land cover of commercial forestry and agricultural pasture fields. Landcover comprises extensive conifer plantation forestry, improved agricultural grassland and pasture, together with forestry tracks, hedgerows and dispersed farmsteads which are characteristic of the wider receiving landscape. The Proposed Wind Farm site is of a modified working landscape type with no unique or special landscape qualities of national or international renown.

As shown in the topography map below, the Proposed Turbines are located on the eastern foothills of Spa Hill and Clomantagh Hill which form part of the wider Slieveardagh Hills complex. The well-defined ridgelines and landforms enclose the Proposed Turbines, limiting visibility from the west as illustrated in Figure 13-1 (ZTV map) previously.

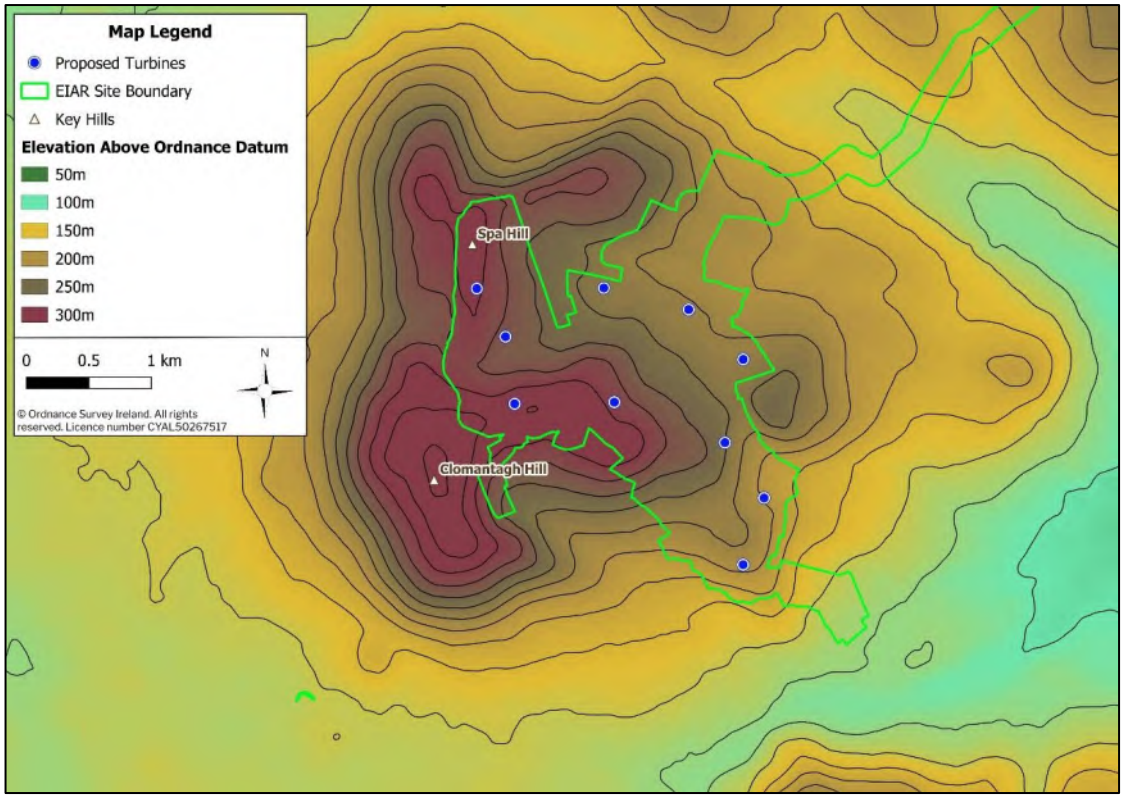


Figure 13-14 Topography of the Proposed Wind Farm site

Landcover is the term used to describe the combinations of vegetation and land-use that cover the land surface. It comprises the more detailed constituent parts of the landscape and encompasses both natural and man-made features.

The northern extent of the Proposed Wind farm site is characterised by large blocks of commercial conifer plantation forestry occupying gently undulating upland terrain, interspersed with areas of improved grassland used for agricultural grazing. The forestry plantations comprise dense conifer stands arranged in geometric blocks typical of managed commercial forestry. There are patchworks of areas within the forestry are which have been felled as seen in Plate 13-9. Proposed Turbine locations within the northern extent (T05-T08 and T10) are situated within the commercial forestry plantations.



Plate 13-6 Drone Image for Landscape Context: Forestry access track to north of the Site



Plate 13-7 View of forestry track from within the Site



Plate 13-8 Drone Image for Landscape Context: T07 approximate location within the existing forestry at the north of the Site



Plate 13-9 Drone Image for Landscape Context: T05 and T06 locations within the forestry within at the north end of the Site

The southern extent of the Site comprises a predominantly agricultural pastoral landscape characterised by improved grassland used for livestock grazing, together with dispersed farmsteads, mature hedgerows and local roads which provide access to agricultural fields. Proposed Turbine locations within this area (T01-T04 and T09) would be situated within agricultural fields adjacent to existing forestry plantations. The surrounding landscape is predominantly agricultural in character, with a sparse settlement pattern and relatively few residential properties, contributing to a sense of remoteness.



Plate 13-10 T02 location in agricultural field to the south of the site which is used for livestock. Facing north

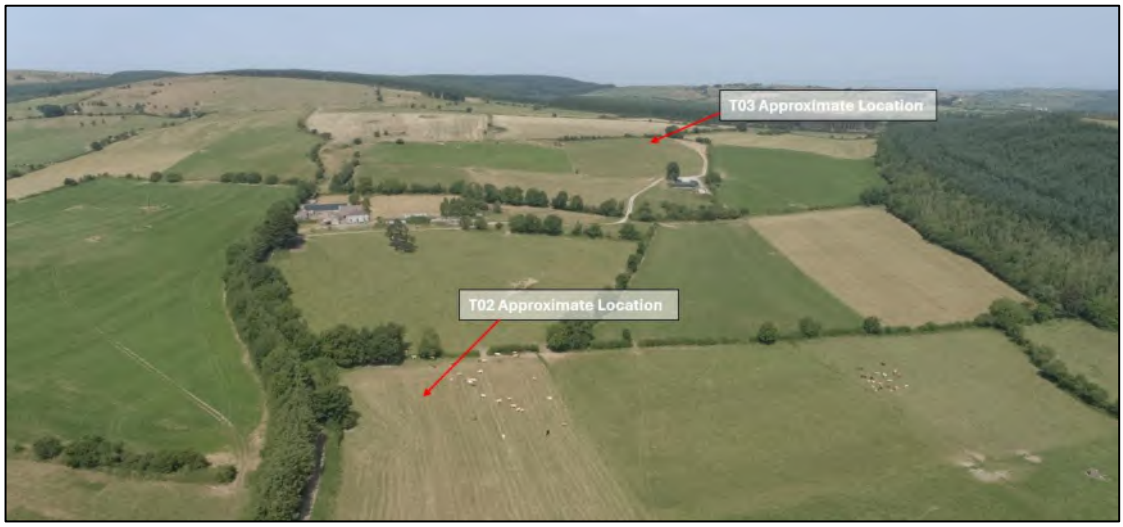


Plate 13-11 Drone Image for Landscape Context: T02 and T03 location to the south of the Site which is in land used for agriculture



Plate 13-12 Existing track in the southern end of the site which accommodates for agricultural activity



Plate 13-13 Drone Image for Landscape Context: Location of T01 within agricultural fields to the south of the Site

Landscape Character of the Proposed 110kV Substation

The Proposed 110kV Substation is located with an agricultural field, approximately 430m north from the nearest Proposed Turbine, T08. The Proposed 110kV Substation has been strategically sited to the south of the northern ridgeline, within an area that is naturally enclosed and visually contained by the surrounding landform, and will not be visible from nearby residential receptors along the local road networks, the nearby Tailte Éireann Viewpoint, or designated Kilkenny Scenic View 14.



Plate 13-14 Drone Image for Landscape Context: Views southwards towards the Proposed 110kV Substation

Landscape character of Proposed 110kV Underground Cabling

As discussed in detail in Chapter 4, it is proposed to connect the Proposed 110kV Substation to the existing Ballyragget 110kV substation in the townland of Moatpark, located approximately 10.3km east of the Proposed 110kV Substation via the Proposed 110kV Underground Cabling, as seen in Figure 13-15 below.

The route follows a network of local roads, as well as a stretch of approximately 770m along the N77 National Road. The Proposed 110kV Underground Cabling traverses no other roads but does enter agricultural fields near the location of the Proposed 110kV Substation and the 110kV Ballyragget

substation. This route traverses through a rural landscape, characterised by agricultural fields and residential areas.



Figure 13-15 Aerial View of the Proposed 110kV Underground Cabling

13.4.2.1.2 Cultural Landscape Character Context of the Proposed Wind Farm site and its Surrounds

The landscape character of the Proposed Wind Farm site and its surrounds is influenced by the presence of archaeological features within the upland landscape of Spa Hill and Clomantagh Hill, most notably Clomantagh Hillfort (also known as Mountgarret Hillfort (KK008-124002-) – as referenced in Chapter 14 of the EIAR). The hillfort is not located within the Proposed Wind Farm site but does forms part of the landscape setting of Clomantagh Hill and contributes to the character and sense of place of the receiving landscape. As detailed previously, Clomantagh Hill was identified as a potential archaeological landscape in the Preliminary Audit of Archaeological Landscapes referenced in the KCCDP. Whilst these historic features contribute to the overall landscape value, the current receiving landscape is predominantly characterised by modified agricultural lands and extensive commercial coniferous forestry. A detailed assessment of the archaeological and cultural heritage is presented separately in Chapter 14 of the EIAR.

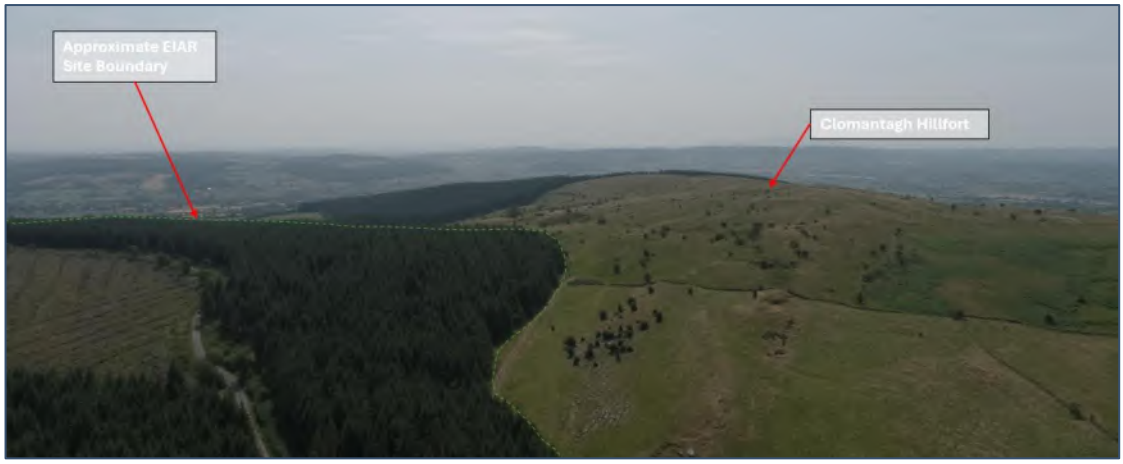


Plate 13-15 Drone Image for Landscape Context: Location of Clomantagh Hillfort in relation to the EIAR Site Boundary

13.4.2.2 Landscape Sensitivity of the Proposed Wind Farm site Itself

The landscape sensitivity of the Proposed Wind Farm site 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 site. The Proposed Wind Farm site's susceptibility to change and overall sensitivity rating are then determined based on this assessment of value, the existing landscape character, and the nature of the Proposed Project.

Table 13-4 Indicators of Landscape Value on the Site

Features & Attributes of Landscape Value	Description
Landscape Designations	The Proposed Wind Farm site is located within KK-LCA-A (N) of County Kilkenny – Slieveardagh Hills (North). Mapping in the LACK and site appraisals determined that the receiving landscape comprises a mixture of different landscape types, including moorland, pasture lands and extensive commercial coniferous forestry which are identified as both '*Class 3 – Normal'* and '*Class 4 – Sensitive'* landscapes. The Proposed Wind Farm site is not located within a specific area of 'Highly Scenic and Significant Visual Amenity Value' in the current KCCDP. The Proposed Wind Farm site is located within an area that was identified as a potential archaeological landscape in the Preliminary Audit of Archaeological Landscapes, however, is not priority archaeological landscapes in the current KCCDP. The Proposed Wind Farm site is located on the foothills of a ridgeline. Within the KCCDP, there is a designated protected view (Protected View 14), referred to as KK-SV-14 located to the north of the Proposed Wind Farm site. All Proposed Turbines and associated infrastructure are located, in the opposing direction of the primary scenic amenity experienced from Protected View 14.
Landscape Elements Quality / Condition	The landscape of the Proposed Wind Farm is a modified working landscape. The condition of the landscape areas within the Proposed Wind Farm site is degraded in several locations due to commercial plantation and agriculture within pastureland.

Scenic / Aesthetic Qualities	The Proposed Wind Farm site has some rural aesthetic qualities given the transitional upland setting and landform features of Clomantagh and Spa Hill. It is to be noted however that the landscape of the Proposed Wind Farm has clearly been subject to human interference and modification through agricultural land use and commercial forestry.
Perceptual Qualities (Tranquillity / Wilderness / Naturalness)	The Proposed Wind Farm is comprised of agricultural land and commercial forestry, thus is modified by human interference. The influence of agriculture and commercial forestry around the Proposed Wind Farm has noticeably altered the perceived sense of naturalness or wildness in this landscape.
Rarity / Conservation Interests	The lands immediately south-west of the Proposed Wind Farm are a designated SAC. No SAC designations are within the Proposed Wind Farm site itself. See Chapter 6 of this EIAR for more information.
Cultural Meaning / Associations	The Proposed Wind Farm site is located within an area that was identified as a potential archaeological landscape in the Preliminary Audit of Archaeological Landscapes, however, is not priority archaeological landscapes in the current KCCDP. 'Clomantagh Hillfort' is located just outside the Proposed Project. See Chapter 14 of this EIAR for more information.
Recreational Values	The Proposed Wind Farm comprises privately owned land and no known recreational amenities are associated with it. The nearest recreation trail is the Gathabawn Loop which is a non-KCCDP designated scenic walking route, located approximately 2km to the northeast of the Proposed Wind Farm site.

In consideration of the factors detailed in the table above, and the designations outlined in the KCCDP, the landscape value of the Proposed Wind Farm site was deemed to be **'Medium'**. The Proposed Wind Farm site is located within a modified, marginal working landscape comprising privately owned lands. There is little to no recreational value to the Proposed Wind Farm site itself, and it is a landscape which has undergone a large degree of human modification due to extensive use of agriculture and commercial forestry. The Proposed Wind Farm site itself does not contain any designations (such as SACs). Notwithstanding the above, the Proposed Wind Farm site is located within an area that was identified as being potential archaeological landscape in the Preliminary Audit of Archaeological Landscapes, however, is not priority archaeological landscapes in the current KCCDP. There are no scenic amenity designations pertaining to the Proposed Wind Farm site itself, and views from nearby designated protected views and directed away from the Proposed Wind Farm.

As reported throughout this LVIA, foothills comprising marginal upland landscape types such as the Wind Farm site are typically very robust and appropriate landscapes for accommodating commercial wind farm developments due to characteristics of the receiving landscape (i.e. large scale and separation from receptors; sparse settlement pattern; working landscape of low sensitivity). As such, the susceptibility to change is deemed to be **'Low'.** Overall, the sensitivity of the landscape of the Proposed Wind Farm site is deemed to be '**Low**'.