APPENDIX 14-2

LANDSCAPE CHARACTER AREA ASSESSMENTS

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1. LANDSCAPE CHARACTER AREA ASSESSMENT TABLES

This appendix comprises an impact assessment addressing the landscape effects of the Proposed Project upon each designated Landscape Character Area (LCA) which has been screened in for assessment in Chapter 14 of this EIAR; please refer to Section 14.4.1.3 'Preliminary Assessment: LCAs' of the main Chapter.

The following terminology is used throughout this chapter in relation to the Proposed Project

- **'Proposed Project'** refers to the entirety of the project for the purposes of this EIA in accordance with the EIA Directive. The Proposed Project is described in detail in Chapter 4 of this EIAR.;
- **'Proposed Project site'** or **'site'** refers to the primary study area for the EIAR, as delineated by the EIAR Site Boundary in green as shown in Figure 1-1 in Chapter 1;
- **'Proposed Grid Connection Route'** refers to the underground 38kV electrical cabling and all associated site development works connecting the Proposed Wind Farm site to the existing Kilkenny 110 kV electrical substation;
- **'Proposed Wind Farm site'** refers to turbines and associated foundations and hardstanding areas, including access roads, underground cabling, permanent meteorological mast, temporary construction compounds, carriageway strengthening works, junction accommodation works, peat and spoil management, tree felling, site drainage, operational stage signage, battery energy storage system, 38kV onsite substation, and all ancillary works and apparatus. The Proposed Wind Farm is described in detail in Chapter 4 of this EIAR.
- **'Proposed turbines'** refers to the turbine components of the Proposed Project;

The impact assessment for each LCA is set out in its own table below, organised by county. In the tables, the discussion of theoretical visibility in each LCA refers to Zone of Theoretical Visibility (ZTV) mapping as outlined in Section 14.3 'Visibility of the Proposed Project' of the main Chapter.

It is recommended that the impact assessments in this appendix are read in conjunction with the following map in the main report:

- Figure 14-10 Map: ZTV & LCAs.

The above map illustrates the boundary of each LCA and is overlain by the Half-Blade ZTVwhich extends to the 15km LCA Study Area for the assessment of effects on landscape character; the brief and full methodologies for determining the Study Area boundary are provided respectively in Section 11.4.2 LCA Study Area of the same name in Appendix 14-1: LVIA Methodology.

Regarding the 'Significance of Effect' ratings in the tables below, the definition of classification is taken from the 'Guidelines on the Information to be Contained in Environmental Impact Assessment Reports' of the Environmental Protection Agency of Ireland (EPA) (2022); refer to Section 1.6.5 'Landscape Effects Assessment Matrix' in Appendix 14-1.

1.1 Sensitivity Ratings

Ireland does not currently have a standardised nationwide Landscape Character Assessment. The LCAs screened in for assessment in Chapter 14 are located in differing counties and each county uses a differing method, scale, hierarchy and naming convention to represent sensitivity of its individual LCAs. For the purposes of this LVIA and to provide consistency across the assessment of LCAs (Appendix 14-2), a rating of sensitivity was assigned to each LCA within the following classification scale:

- Very High;
- High;
- Medium;
- Low.

The sensitivity classification assigned to each LCA takes into account key characteristic and sensitivity descriptions (and where applicable, the sensitivity ratings) in the respective county development plans, as well as any relevant wind energy capacity designations and policy. A rationale for the sensitivity classification of each LCA is provided in the assessment tables included below. LCAs at the 'Very High' end of the scale would include very sensitive landscapes of national importance, whilst LCAs at the 'Low' end of the scale might be locally important landscapes, but those which do not comprise receptors or characteristics of unique or national value.

1.2 County Carlow

Reference is made to the Carlow County Landscape Character Assessment and Carlow County Renewable Energy Strategy which forms the County Carlow Development Plan 2022-2028; it includes specific information about the sensitivity of each LCA in relation to wind energy development and has informed the impact assessments in the tables below.

1.2.1 LCA 4 - Killeshin Hills (contains all Proposed turbines)

County Carlow LCA-4 (Killeshin Hills)	
Map Ref.	C-LCA-4
Distance from the site to Nearest/ Furthest Area of LCA	The Proposed Wind Farm site is located within this LCA, in the west of Co. Carlow.
LCA Key Characteristics ***(CCDP Chapter 9, Landscape and Green Infrastructure, Section 9.4)***	- *"The area is almost entirely a rural agricultural landscape with a moderate level of sensitivity and moderate potential capacity to absorb different types of development. Due to its upland character and relative exposure, it has a low potential capacity to absorb rural housing or industrial development.* - *The Killeshin Hills contains the following Landscape Types: uplands, farmed ridges, farmed lowlands and broad river valley."*
Landscape Sensitivity to a Wind Farm Development	In relation to the Killeshin Hills LCA, the CCLCA states that, *"wind turbines could be similarly sited* ***subject to appropriate conditions*** *relating to mitigation measures".* The CCLA also notes that the area of the LCA *"is almost entirely a rural agricultural landscape with* ***a moderate level of sensitivity*** *and* ***moderate potential capacity to absorb different types of development****".* Furthermore, in relation to land-use capacity, Table 9.2 of the Landscape Character Assessment notes that this LCA has a Moderate compatibility to windfarm land use. Additionally, Table 6-3 of the County Carlow Renewable Energy Strategy (CCRES) further notes that there may be *"moderate scope to absorb extractive industry and wind farming"* subject to appropriate mitigation measures.

	Analysis of this LCA from site visits, policy strategies and the professional judgement of the LVIA team, this LCA has been deemed that this is not a high sensitivity landscape for wind energy development, particularly in a national context. An analysis in Section 14.4.1.3.4 of Chapter 14 highlights some incongruencies in the local planning policies, zoning and designations as they relate to wind energy and landscape. Section 14.4.1.3.4 also provides a rationale for the suitability of this upland landscape, as an area with a high capacity for effectively absorbing a wind energy development. It is also of note there a number of other existing, permitted and proposed wind farms in the LCA, indicating support for the principle of developing wind energy in the Killeshin Hills LCA. On balance, based upon professional judgement, appraisals of the landscape in the field and factors outlined in Section 14.4.1.3.5 of Chapter 14, the sensitivity of this LCA to wind energy development is deemed to be **Medium**.
Visibility of the Proposed Project from within the LCA	The Killeshin Hills Uplands LCA has nearly full theoretical visibility as indicated by the ZTV. The greatest visibility is concentrated within the upland plateau where the project is located, as well as some areas to the East of the Proposed Project site (Barrow Valley), with the majority of the turbines visible within 10km. Viewpoints 1, 2, 3, 5, and 19 are located within this LCA along with numerous photowire viewpoints (PWVPs) (PWVP-A, PWVP-B, PWVP-D, PWVP-E, PWVP-G, PWVP-I, PWVP-K, PWVP-L, PWVP-M, PWVP-N, PWVP-O, PWVP-P).
Cumulative Effects	2 no. permitted wind energy developments are located in this LCA. They are: › Permitted Bilboa Wind Farm; › Permitted White Hill Wind Farm. All 5 No. turbines of the permitted Bilboa Wind Farm are located in this LCA, with its location being approximately 1.3km North-North-East of the Proposed Wind Farm at their closest point. Four No. turbines of the White Hill Wind Farm are located in this LCA, approx. 2.1km South-West of the Proposed Wind Farm at their closest point. As shown by the photomontages, these turbines will be seen within the same upland part of the LCA as the Proposed turbines, where there will likely be some cumulative effects on the character of the landscape. The existing Gorthahile turbines are located to the north-west of the Proposed Wind Farm site in close proximity to this LCA and will contribute to cumulative landscape effects on this LCA in combination with the Proposed Development, permitted Balboa and the permitted White Hills.
Magnitude of Change *(Definition – from Table 1-3 in Section 1.5.1.3 of Appendix 14-1)*	**Magnitude = Moderate.** *"A more limited loss of or change to landscape features over a medium extent which will result in some change to landscape features and aesthetics. Could include the addition of some new uncharacteristic features or elements that would lead to the potential for change in landscape character in a localised area or part of a landscape character area. Would include moderate effects on the overall landscape character that do not affect key characteristics. The effects could be long to medium term and/or partially reversible.*

	Refer to Section 1.6.4 'Magnitude of Landscape Change' in Appendix 14-1: LVIA Methodology.
Significance of Effect	**Medium × Moderate = Moderate/Minor = 'Moderate' (EPA, 2022)** *'An effect that alters the character of the environment in a manner consistent with existing and emerging baseline trends.'* Refer to Section 1.6.5 'Landscape Effects Assessment Matrix' in *Appendix 14-1: LVIA Methodology*.
Mitigation Factors	› The Proposed Project will not significantly impact upon any of the key scenic or landscape sensitivities of this LCA. › The Proposed Project is sited in a sparsely populated area of the LCA which is highly modified by current land use such as commercial forestry, the site and its immediate setting is considered an area of Low landscape value and Low sensitivity (See Section 14.4.2 of Chapter 14 – Landscape Character of the Proposed Project site). › As demonstrated by the photomontages the Proposed Project is generally perceived as a linear array of turbines on the elevated uplands atop the Barrow Valley when viewed from the east of the LCA, in accordance with design guidance in the DoEHLG 2006 Guidelines. › As demonstrated by the photomontages, when viewed from within the upland areas of this LCA, the Proposed turbines will not obstruct or substantially intrude upon any of the key scenic sensitivities of the upland area – which generally include the open and long-ranging vistas across the Barrow Valley to the East or along the river valleys to the west. › The Proposed Wind Farm is sited on an upland plateau inset from the primary ridgeline to the east. The landform characteristics and strategic locational siting of turbines in relation to the ridgeline to the east, provide visual enclosure limiting impacts upon receptors to the east of the site, on the steep western side of the Barrow Valley. › Visibility appraisals conducted during site visits, and a Route Screening Analysis within 3km of the site determined that visibility in this LCA is far less than indicated by the ZTV, screening provided by vegetation will limit visibility of the Proposed turbines from both the upland area surrounding the site and lowland areas of the LCA to the East.

1.2.2 LCA 2 - Central Lowlands

County Carlow LCA-2: Central Lowlands	
Map Ref.	C-LCA-2
Distance from the site to Nearest/ Furthest Area of LCA	At the closest point, this LCA is located approximately 5.8km East of the nearest Proposed turbine (T05).
LCA Key Characteristics ***(CCDP Chapter 9, Landscape and Green Infrastructure, Section 9.4)***	› *'The Central lowlands has capacity to absorb most types of development subject to the implementation of appropriate mitigation measures. The area encompasses river valleys and ridges that are, however, more sensitive to development than other locations within the area. These include the Barrow, Slaney and Douglas River Valleys.* › *The Central Lowlands contain the following Landscape Types: broad and narrow river valleys, farmed lowlands and farmed ridges.*
Landscape Sensitivity to Wind Farm Development	Rationale: The LCA contains farmed lowlands, farmed ridges and built-up areas identified as an area of increasing sensitivity. Table 9.1 of the CCDP 2022-28 states that the built-up areas in the LCA is the least sensitive while the farmed lowlands have both decreasing sensitivity and moderate sensitivity and the farmed ridges LCT has increasing sensitivity. As a result, the sensitivity is deemed 'Medium' after assessing the sensitivity average from the LCT rating as the CCDP 2022-28 does not provide a sensitivity rating for the LCA's. Refer to Section 1.6.3 'Sensitivity of Landscape Character Areas' in Appendix 14-1: LVIA Methodology and 'Volume 2b – Appendices' of the Landscape Character Assessment within the CCDP 2022-28. On balance, based upon review of local landscape policy, professional judgement, appraisals of the landscape in the field the sensitivity of this LCA to wind energy development is deemed to be **Medium**.
Visibility of the Proposed Project from within the LCA	Approx. three-quarters of the Central Lowlands shows full theoretical visibility as indicated by the ZTV. The ZTV shows full theoretical visibility in the Barrow Valley, but no and very limited theoretical visibility to the east of the LCA where it is located in the 15km LCA Study Area for assessment of effects on LCAs. Viewpoint 09, 25, 32, 36, 38 and Viewpoint 39 and numerous PWVPs (PWVP-C, PWVP-F, PWVP-H, PWVP-Q and PWVP-T) area located within this LCA.
Cumulative Effects	3 no. existing, permitted or proposed wind energy developments are also located in this LCA. These are: › Single Permitted Jerry Bolger Wind Turbine; › Single Permitted Kilcarrig Wind Turbine; › Single Existing Ballon Meats Wind Turbine. The single turbines, owned by individuals, are located in this LCA. These turbines have a range tip height of 68m – 99.5m and the closest turbine is located approx. 10.4km from the nearest Proposed turbine, T05. These

	singular turbines have limited visual exposure in the LCA and have limited cumulative effects on the character of this LCA. Other developments in the upland areas of the Killeshin Hills such as the permitted White Hills turbines, permitted Bilboa turbines and existing Gorthahile turbines will be seen in combination with the turbines of the Proposed Project upon the elevated ridgeline from areas in this LCA. These other developments will therefore contribute to cumulative landscape effects on the character of this LCA when seen in combination with the Proposed Project.
Magnitude of Change	**Magnitude = Slight.** "Definition: *The loss of or change to landscape features of limited extent, or changes to landscape character in smaller areas. Changes would not affect key characteristics. The addition of any new features or elements to the landscape would only result in low-level changes to the overall aesthetics of the landscapes. Changes to the landscape are more evident at a local level and not over a wide geographical area. The effects could potentially be medium to short term and/or reversible."* Refer to Section 1.6.4 'Magnitude of Landscape Change' in Appendix 14-1: LVIA Methodology.
Significance of Effect	**Medium × Slight = Minor = 'Slight' (EPA, 2022)** *'An effect which causes noticeable changes in the character of the environment without affecting its sensitivities'.* Refer to Section 1.6.5 'Landscape Effects Assessment Matrix' in Appendix 14-1: LVIA Methodology.
Mitigation Factors	› The Proposed Wind Farm is visible on an elevated ridgeline >6km from the nearest part of this LCA and will not materially alter the landscape of this LCA, nor will it significantly impact the character of this LCA. › Substantial screening from vegetation and ridges of higher elevation points is present, visibility will be far less than indicated by the ZTV. › The Proposed turbines will not significantly impact upon any of the key scenic or landscape sensitivities of this LCA. › As demonstrated by the photomontages the Proposed turbines are generally perceived as a linear array of turbines on the elevated uplands atop the Barrow Valley when viewed from the east of the LCA, in accordance with design guidance in the DoEHLG 2006 Guidelines. › As demonstrated by the photomontages, when viewed from within the Central Lowlands areas of this LCA, the Proposed Project will not obstruct or substantially intrude upon any of the key scenic sensitivities of the upland area – which generally include the open and long-ranging vistas across the Barrow Valley to the West.

1.3 County Kilkenny

Reference in this section is made to landscape designations and terminology in the County Kilkenny County Development Plan (KCDP) 2021-2027 as well as the Landscape Character Assessment, which formed Appendix C to the 2008 Development Plan, and is referred to in the 2021-2027 KCDP. Both documents has informed the impact assessment table below.

1.3.1 LCA B – Castlecomer Plateau

County Kilkenny LCA B: Castlecomer Plateau	
Map Ref.	KK-LCA-B
Distance from the site to Nearest/ Furthest Area of LCA	At the closest point, this LCA is located approximately 1.5km West of the nearest Proposed turbine (T06) and the Proposed Grid Connection Route goes through this LCA towards Kilkenny City .
LCA Key Characteristics	‘*Elevated Vistas* *Steep Slopes* *Prominent Ridge Lines* *Undulating Topography* *Low Vegetation’*
Landscape Sensitivity to a Wind Farm Development	Appendix C to the 2008 Development Plan notes that this LCA notes that *“this area is generally perceived as special in landscape terms, however suitable for certain types of development”.* The KKCDP primarily designated the majority of this LCA as an area which is ‘Acceptable in Principle’ with the next largest designated area being ‘Open for Consideration’, with one of the areas of the highest wind speeds in the County. Furthermore, Section 8 of the KCDP 2008 – 2025 Appendix C continues to note that the central valley of Castlecomer Plateaux, including the upland enclosures are perceived as suitable for general development, including wind energy developments. On balance, based upon professional judgement, appraisals of the landscape in the field and factors outlined in Chapter 14, the sensitivity of this LCA to wind energy development is deemed to be **Medium**.
Visibility of the Proposed Project from within the LCA	According to ZTV mapping, approx. one-quarter of the LCAs area has theoretical visibility. Most of this visibility within the Upland area of the Castlecomer Plateaux LCAT has full visibility but occurs closest to the Proposed Wind Farm site. After site visits in 2023, it was determined that at a distance only elevated vantage points will have views such as VP 10 past Castlecomer. Viewpoints 3, 9 and 10 and PWVP-J are located in this LCA
Cumulative Effects	2 no. other wind energy developments are also located in this LCA. They are:

	› Permitted White Hills Wind Farm; › Proposed Freneystown Wind farm (Pre-Planning Stage). Two No. wind farms that are located in this LCAT: proposed Freneystown Wind Farm with 8 No. turbines and the permitted White Hill Wind Farm with 3 No. turbines which crosses into Co. Kilkenny and is located in the Castlecomer Plateaux LCAT. The White Hills development is located in close proximity to the Proposed Wind Farm site and is partially sited in the Killeshin Hills LCA. The Permitted Balboa turbines and the existing Gortahile turbines are all located in close proximity to the eastern boundary Castlecomer LCA. These other developments will be seen in combination with the turbines of the Proposed Project from the elevated lands in the east of the LCA and will therefore contribute to cumulative landscape effects on the character of this LCA when seen in combination with the Proposed Project.
Magnitude of Change	**Magnitude = Slight.** "Definition: *The loss of or change to landscape features of limited extent, or changes to landscape character in smaller areas. Changes would not affect key characteristics. The addition of any new features or elements to the landscape would only result in low-level changes to the overall aesthetics of the landscapes. Changes to the landscape are more evident at a local level and not over a wide geographical area. The effects could potentially be medium to short term and/or reversible."* Refer to Section 1.6.4 'Magnitude of Landscape Change' in Appendix 14-1: LVIA Methodology.
Significance of Effect	**Medium × Slight = Minor = 'Slight' (EPA, 2022)** *'An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.'* Refer to Section 1.6.5 'Landscape Effects Assessment Matrix' in Appendix 14-1: LVIA Methodology.
Mitigation Factors	› Multiple ridges are existent across this LCAT, which limit views facing in easterly direction towards the Proposed Wind Farm Site from a large proportion of this LCA, therefore limiting effects on its landscape character; › As demonstrated by the photomontages, when viewed from within the Upland areas of this LCA, the Proposed turbines will not obstruct or substantially intrude upon any of the key scenic sensitivities of the upland area – which generally include the small Dinin Valley to the West. › Substantial vegetation is existent throughout this transitional landscape, with evident agricultural land and forestry sites limiting visibility of the Proposed Project and therefore its effect the landscape character of this LCA;

	➢ The Proposed Project will not significantly impact upon any of the key scenic or landscape sensitivities of this LCA. As demonstrated by the photomontages, when viewed from within the Upland areas of this LCA, the Proposed turbines will not obstruct or substantially intrude upon any of the key scenic sensitivities of the upland area – which generally include the small Dinin Valley to the West.

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