APPENDIX 13-2

LCA Assessment Tables

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1. LANDSCAPE CHARACTER AREA (LCA) ASSESSMENT TABLES

This appendix comprises an impact assessment addressing the landscape effects of the Proposed Turbines upon each designated Landscape Character Area (LCA) scoped in for assessment in Chapter 13 of this EIAR; please refer to the main chapter, Section 13.4.4.1 LCA Preliminary Analysis.

The impact assessment for each LCA is set out in its own table below. In the tables, the discussion of theoretical visibility in each LCA refers to Zone of Theoretical Visibility (ZTV) mapping as outlined in Section 13.3 'Visibility of the Proposed Project' of Chapter 13.

It is recommended that the impact assessments in this appendix are read in conjunction with Figure 13-8: Landscape Character Areas with ZTV in the main chapter. This map illustrates the boundary of each LCA and is overlain by the Half-Blade ZTV, which extends to the 15km LCA Study Area for the assessment of effects on designated LCAs; the brief and full methodologies for determining the LCA Study Area boundary are provided respectively in Section 13.2.1 'Scope and Definition of LVIA Study Area' of the main chapter and in Section 1.4.2 in *Appendix 13-1: 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 *Appendix 13-1*, 'Section 1.7.5 Landscape Effects Assessment Matrix'.

In line with the EPA (2022) glossary, the potential effect is *"the effect / impact that would occur without mitigation"* and the residual effect is *"the final predicted effect / impact remaining after mitigation"*. In these tables, the residual landscape effect also takes account of the mitigating factors listed for each LCA.

1.1 Sensitivity Ratings

Ireland does not currently have standardised, nationwide sensitivity ratings for Landscape Character Assessment. The LCAs assessed in this appendix are located within Counties Kilkenny, Tipperary and Laois, whose development plans use differing methods, scales, hierarchies and naming conventions to represent the sensitivity of individual LCAs. Therefore, this LVIA assigns a standardised sensitivity rating to each LCA using the following classification scale:

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

The sensitivity rating considers the key characteristics and sensitivity descriptions (and, where applicable, the county-specific LCA sensitivity ratings) in the respective county development plans, as well as any relevant wind energy designations and policy. A rationale for each rating is provided in the assessment tables below. LCAs at the 'Very High' end of the scale include very sensitive landscapes of national importance, whilst LCAs at the 'Low' end of the scale may be locally important landscapes that do not comprise receptors or characteristics of unique or national value.

1.2 County Kilkenny

The assessment in this section was informed by landscape designations in the Kilkenny City and County Development Plan (KCCDP) 2021-2027 and the Landscape Character Assessment of the County Kilkenny 2008-2014 (hereafter, LACK), which forms Appendix C to the previous 2008 development plan and remains acknowledged in the current 2021-2027 KKCDP, as well as Appendix K: Wind Energy Development Strategy of the KKCDP (hereafter, Appendix K).As detailed in Section 13.4.1.2.2 of Chapter 13 of the EIAR, there are inconsistencies between the LACK, the KCCDP (including Appendix K) and current landscape conditions as determined through on-site landscape appraisals. Regard has been given to all four within the assessment below.

1.2.1 KK–LCA-A (N): Slieveardagh Hills (North)

Kilkenny LCA-A (N): Slieveardagh Hills (North)	
Map Ref.	KK-LCA-A (N)
Distance from the Site to Furthest Area of LCA	All of the Proposed Turbines are located within this LCA. At its furthest point, the LCA extends approximately 11.6km northeast of the nearest proposed turbine (T9).
LCA Key Characteristics and Critical Landscape Factors *(Landscape Appraisal of County Kilkenny, - Appendix C, KCDP (2008-2014))*	***Key Characteristics:*** › *"Rural agricultural landscape* › *The general land-use on the uplands is agricultural grazing, however some areas are occupied by conifer and broad-leaved forests.* › *Land parcels are of a medium size, with a proliferation of hawthorn and gorse.* › *Gently undulating topography is presented within the upland area of this character unit.* › *Hedgerows are generally unmaintained.* › *A dispersed pattern of residential and traditional farmhouse structures are indicative of a low population density."* ***Critical Landscape Factors:*** › *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*

Kilkenny LCA-A (N): Slieveardagh Hills (North)	
	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.*
LCA Capacity for Wind Energy Development	Section 5.1 within the LACK states that, LCAs consisting of pasturelands and coniferous forests are designated with the sensitivity rating of *"Class 3– Normal"*, which ranks third out of the five sensitivity ratings assigned to LCAs within County Kilkenny. Areas classified under this sensitivity rating are described as *"a common character type with a potential to absorb a wide range of new developments."* In addition, the LACK indicates that this LCA generally has *"no significant landscape value"* but that the northern hills (i.e. Spa Hill and Clomantagh Hill) have *"certain [...] scenic value"*, which are identified as an *"Area of High Amenity"* in the LACK. As outlined in Figure 8 of Appendix K, this LCA is classified as having areas that are primarily *"Acceptable in Principle"* and *"Open for Consideration"* as well as having an area that is classified as *'Not Normally Permissible"* for wind farm development on the northern hills. T1 and T2 are located in an area zoned as "*Acceptable in Principle*" and T3-T10 are in areas zoned as "*Not Normally Permissible*". Section 4.3 of Appendix K highlights that the reasoning for excluding the northern hills from wind energy zoning is due to the potential for impacts on the "cumulative natural and cultural heritage features" in this area. As discussed in Section 13.4.1 of Chapter 13, all of the Proposed Turbines are located within a single landscape unit, characterised by agricultural fields and commercial forestry, within a remote, upland, working landscape of 'low' landscape value, suitable for wind energy development. The DoEHLG 2006 Guidelines and Draft 2019 Guidelines state that landscape sensitivity is the key consideration in the evaluation of areas suitable for wind energy development. According to the guidance, in general, it is preferable to site commercial wind energy developments in landscapes of lower sensitivity, as the change arising will ultimately result in a lower impact upon the landscape when appropriate siting and design are followed. In consideration of the above noted classifications, designations within the LACK, Appendix K and the KCCDP and site appraisals, sensitivity to wind farm development is deemed to be **Low**.

Kilkenny LCA-A (N): Slieveardagh Hills (North)	
Visibility of the Wind Farm site from within the LCA	As indicated by the ZTV, there is primarily full Theoretical Visibility (hereafter referred to as TV) within 5km of the Proposed Turbines, with small pockets of no TV and large areas of partial TV due to topographical screening. Beyond 5km to the north-east, beyond Knockmannon Hill, there is primarily no TV of the Proposed Turbines. On-site visibility appraisals determined that the greatest visibility of the Proposed Turbines is concentrated to those areas in close proximity of the Proposed Turbines, as vegetation and undulating topography limit views to the wider landscape. Viewpoints 05, 07, 08, 09, 13, and 18 are located in within this LCA.
Cumulative Context	The following existing Wind Farm is located within this LCA: › Existing Lisdowney Wind Farm (4/4 turbines) In a potential future receiving environment, the following proposed Wind Farms would be located within this LCA: › Proposed Seskin Renewables Wind farm (5/ 8 proposed turbines) › Proposed Gathabawn Wind Farm (11/12 proposed turbines)
Cumulative Effects	Given the density of other existing and proposed wind energy developments, and the extent of the Proposed Turbines, cumulative landscape effects will occur from the addition of the Proposed Project within this LCA. Overall, as illustrated by the Cumulative Comparative ZTV (Figure 13-19 in Chapter 13), the majority of areas within 5 km of the Proposed Turbines have theoretical visibility of both the proposed and cumulative turbines. To the north-east, there are areas of only cumulative turbines theoretically visible beyond Knockmannon Hill. There are likely to be views in combination and in succession views of the Proposed Turbines and the existing Lisdowney turbines. In a potential future receiving environment, cumulative effects will occur as the Proposed Turbines may be seen in combination with the proposed Gathabawn turbines and with the proposed Seskin Renewables turbines. Cumulative effects that do arise are incorporated into the magnitude of change below.
Magnitude of Change (Definition – from Section 1.7.4: Magnitude of Landscape Change in *Appendix 13-1)*	**Magnitude = Moderate.** **Rationale:** The Proposed Wind Farm will alter the physical fabric of the landscape within this LCA, with changes localised to the topographical features of Spa Hill and Clomantagh Hill. In terms of landscape character, the greatest effects will occur in close proximity to the Proposed Wind Farm (within 5km of the Proposed Turbines). Effects on the character of the wider landscape within the LCA is restricted due to visual screening from surrounding landforms and ridgelines. Therefore, the Proposed Project is considered to have an overall moderate effect on the overall landscape character of this LCA.
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."*

Kilkenny LCA-A (N): Slieveardagh Hills (North)	
	Refer to Section 1.7.5 Landscape Effects Matrix in *Appendix 13-1: LVIA Methodology.*
Mitigation Factors	› The Proposed Turbines and associated development infrastructure will only materially alter a localised portion of this LCA; › The Proposed Turbines within this LCA are sited on landcover that has been highly modified from its natural state. The landscape lacks sensitive landscape features and primarily consists of agricultural farmland and commercial forestry. This landcover is considered to have relatively low sensitivity to wind energy development; › Due to rises in topography north-east of the Proposed Turbines, large areas in this direction of this LCA have no visibility of the Proposed Turbines. Therefore, the greatest effects on landscape character will be localised within 5km of the Proposed Turbines; › The shelter vegetation (commercial forestry) and undulating topography in this LCA provide a sense of enclosure and ability to absorb the scale of the Proposed Turbines; › In relation to landscape sensitivity, the LACK outlines that *"areas where enclosing topography, screening vegetation and/or existing development are present should have a high potential to absorb new development"*. The LACK also notes that "*the upland enclosures* [i.e. Slieveardagh Hills] *were largely identified as acceptable for infrastructure, wind energy, quarrying and forestry type projects". The Site* is located on in an area that fits this description; › As part of the iterative design process, described in Chapter 3 of the EIAR, 3 no. turbines were omitted from the first iteration of the turbine layout before the final proposed turbine layout was determined. This has resulted in a substantial set-back distance between the Proposed Turbines and visual receptors to the west, ensuring that the turbines are not situated within the immediate visual context of Clomantagh Hill when viewed from the west to reduce potential landscape and visual effects; › The turbine layout has been designed to create a coherent cluster of turbines, contiguous and connected to each other visually and with consistent spacing in line with the guidance for design and siting of wind farms within the 'Hilly and Flat Farmland Character Type' in the DoEHLG 2006 Guidelines and Draft 2019 Guidelines, the landscape character type of this LCA; › The Proposed 110kV Underground Cabling is entirely underground and thus will not affect key landscape character characteristics beyond the construction phase;
Residual Effect (incl. mitigating factors)	**Moderate (EPA, 2022)** *"An effect that alters the character of the environment in a manner consistent with existing and emerging baseline trends."*

1.2.2 KK–LCA-A (S): Slieveardagh Hills (South)

Kilkenny LCA-A (S): Slieveardagh Hills (South)	
Map Ref.	KK-LCA-A (S)
Distance from the Site to Nearest/ Furthest Area of LCA	At its closest point, KK-LCA-A (S) is located approx. 1.3km south of the nearest proposed turbine (T1).
LCA Key Characteristics and Critical Landscape Factors *(Landscape Appraisal of County Kilkenny, - Appendix C, KCDP (2008-2014))*	***Key Characteristics:*** › *"Rural agricultural landscape.* › *The general land use on the uplands is agricultural grazing, however some areas are occupied by conifer and broad-leaved forests.* › *Land parcels are of a medium size, with a proliferation of hawthorn and gorse.* › *Gently undulating topography is presented within the upland area of this character unit.* › *Land parcels are of a medium size, with a proliferation of hawthorn and gorse.* › *Hedgerows are generally unmaintained.* › *A dispersed pattern of residential and traditional farmhouse structures are indicative of a low population density."* ***Critical Landscape Factors:*** › *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*

Kilkenny LCA-A (S): Slieveardagh Hills (South)	
	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.*
LCA Capacity for Wind Energy Development	According to Section 5.1 within the LACK, LCAs consisting of pasturelands and coniferous forests are designated with the sensitivity rating of *"Class 3– Normal"*, which ranks third out of the five sensitivity ratings assigned to LCAs within County Kilkenny. Areas classified under this sensitivity rating are described as *"a common character type with a potential to absorb a wide range of new developments."* In addition, the LACK indicates that this LCA generally has *"no significant landscape value"*. As outlined in Figure 8 of Appendix K, this LCA is classified as having areas that are *"Acceptable in Principle"*, *"Open for Consideration"* as well as a small area that is classified as *'Not Normally Permissible"* for windfarm land use. Section 8 of Document 2 of the LACK notes that the *"Slieveardagh Hills were generally perceived as being most suitable"* for various development including wind energy. In consideration of the above noted classifications and designations, sensitivity to wind farm development is deemed to be **Low**.
Visibility of the Wind Farm site from within the LCA	Primarily full TV within 5km of the Proposed Turbines. Beyond 5km, there are large areas of no or partial TV. On-site visibility appraisals determined that beyond 5km, visibility is most likely to occur from elevated vantage points within this LCA. No viewpoints are located within this LCA. Viewpoints 03, 11, , 12, and 14 are located in very close proximity to the border of this LCA. Photowire D is also located in close proximity to this LCA.
Cumulative Context	The following existing and permitted Wind Farms are located within this LCA: › Existing Ballybay Wind Farm (6/6 turbines) › Existing Foyle Wind Farm (4/4 turbines) › Permitted Foyle Wind Farm (3/3 turbines) In a potential future receiving environment, the following proposed Wind Farms would be located within this LCA: › Proposed Briskalagh Wind Farm (7/7 turbines)
Cumulative Effects	As shown by the Cumulative Comparative ZTV, the vast majority of the area within this LCA has stretches of both cumulative theoretical visibility as well as cumulative turbines only theoretical visibility. Cumulative effects on the character of this LCA will occur where the Proposed Project may be experienced in combination with the existing Ballybay, existing Foyle, the proposed Briskalagh and Gathabawn Wind Farms and the permitted Foyle Wind Farm, although the Proposed Turbines of the Proposed Project will not materially alter the physical fabric of this LCA. Cumulative effects that do arise are incorporated into the magnitude of change below.

Kilkenny LCA-A (S): Slieveardagh Hills (South)	
Magnitude of Change	**Magnitude = Slight** **Rationale:** The Proposed Project will not materially alter the physical fabric of this LCA. In terms of visibility, the Proposed Turbines will be most visible from elevated vantage points within the LCA, with surrounding landforms and ridgelines providing substantial visual screening across the lower-lying areas. Consequently, the potential for effects on the landscape character of the wider LCA is limited, with the greatest effects likely to occur in those elevated areas where more open views of the Proposed Turbines occur. For the definition of this rating, refer to Section 1.7.4: Magnitude of Landscape Change in *Appendix 13-1: LVIA Methodology*.
Significance of Effect	**Low × Slight = Minor/Negligible = Not Significant (EPA, 2022)** *"An effect which causes noticeable changes in the character of the environment but without significant consequences."* Refer to Section 1.7.5 Landscape Effects Matrix in *Appendix 13-1: LVIA Methodology*
Mitigation Factors	› The Proposed Project is not located within this LCA, and therefore, will not alter the physical fabric of the landscape; › A large portion of the Slieveardagh Mountains is located in the north of this LCA, and there are therefore large areas throughout this LCA where there will be no visibility of the Proposed Turbines. Therefore, the greatest effects on landscape character will be localised to elevated vantage points or locations with views through valleys within this LCA; › Dense and largely unmaintained hedgerows which are typical throughout this LCA (see LCA Key Characteristics) will substantially limit actual visibility of the Proposed Turbines from large areas of this LCA; › Some areas of commercial forestry provide a sheltering effect and a sense of enclosure, visually screening the Proposed Turbines.
Residual Effect (incl. mitigating factors)	**Not Significant (EPA, 2022)** *"An effect which causes noticeable changes in the character of the environment but without significant consequences."*

1.2.3 KK-LCA-A1: Slieveardagh Western Transition Zone

Kilkenny LCA-A1: Slieveardagh Western Transition Zone	
Map Ref.	KK-LCA-A1
Distance from the Site to Nearest/ Furthest Area of LCA	At its closest point, KK-LCA-A1 is located approx. 4.2km northwest of the nearest proposed turbine (T7).
LCA Key Characteristics	***Key Characteristics:***

Kilkenny LCA-A1: Slieveardagh Western Transition Zone	
(Landscape Appraisal of County Kilkenny, - Appendix C, KCDP (2008-2014))	› *"A sense of enclosure is gained through large, unmaintained hedgerows bounding the roadsides.* › *Fields are generally of a medium size with low trees and moorland vegetation, rendering poor quality pasturelands.* › *Predominantly low vegetation as represented in this unit by moorland and pastureland grasses is generally uniform in appearance, failing to break up vistas, and allowing long distance visibility."* ***Critical Landscape Factors:*** › *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.* › *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.* › *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.*
LCA Capacity for Wind Energy Development	This LCA is given a *"Class 1 - Degraded"* sensitivity rating in the LACK, the lowest of five sensitivity classes assigned to LCAs within County Kilkenny. This sensitivity is described as having *"a high potential to absorb new development."* As outlined in Figure 8 of Appendix K, this LCA is classified as having areas that are *"Acceptable in Principle"* and *"Open for Consideration"* for wind farm development. In consideration of the above noted classifications and designations, sensitivity to wind farm development is deemed to be **Low**.
Visibility of the Wind Farm site from within the LCA	There is primarily partial TV within this LCA, with areas of full TV largely confined to the elevated landforms of Knockdrinna and Graiuge Hills. Viewpoint 01 is located within this LCA.
Cumulative Context	The following existing Wind Farms are located within this LCA: › Existing Bruckana Wind Farm (5/13 turbines) › Existing Lisheen Wind Farm III (6/8 turbines)
Cumulative Effects	As shown by the Cumulative Comparative ZTV, the majority of this LCA comprises visibility of both the Proposed Turbines and other cumulative turbines. Cumulative effects on the character of this LCA will occur where the Proposed Project may be experienced in combination with the existing Bruckana and Lisheen Wind Farms (that are located within this LCA), as well as proposed Gathabawn turbines and potentially the existing Lisdowney Wind Farm, both located in KK – LCA-A (North). The Proposed Turbines of the Proposed Project will not materially alter the

Kilkenny LCA-A1: Slieveardagh Western Transition Zone	
	physical fabric of this LCA. Cumulative effects that do arise are incorporated into the magnitude of change below.
Magnitude of Change	**Magnitude = Slight.** **Rationale:** The Proposed Project will not materially alter the physical fabric of this LCA. In terms of visibility, the Proposed Turbines will be most visible from elevated vantage points within the LCA, with the ridgelines west of the Proposed Turbines providing visual screening across the lower-lying areas of this LCA. Consequently, the potential for effects on the landscape character of the wider LCA is limited, with the greatest effects likely to occur in those elevated areas where more open views of the Proposed Turbines occur. For the definition of this rating, refer to Section 1.7.4: Magnitude of Landscape Change in *Appendix 13-1: LVIA Methodology*.
Significance of Effect	**Low × Slight = Minor/Negligible = Not Significant (EPA, 2022)** *"An effect which causes noticeable changes in the character of the environment but without significant consequences."* Refer to Section 1.7.5 Landscape Effects Matrix in *Appendix 13-1: LVIA Methodology.*
Mitigation Factors	› On site visibility appraisals determined that shelter vegetation, in the form of dense and largely unmaintained hedgerows which are typical throughout this LCA (see LCA Key Characteristics) will substantially limit actual visibility of the Proposed Turbines from vast areas within this LCA; › Intervening topography visually screens multiple Proposed Turbines from large portions of this LCA.
Residual Effect (incl. mitigating factors)	**Not Significant (EPA, 2022)** *"An effect which causes noticeable changes in the character of the environment but without significant consequences."*

1.2.4 KK–LCA-A2: Slieveardagh Central Transition Zone

Kilkenny LCA-A2: Slieveardagh Central Transition Zone	
Map Ref.	KK-LCA-A2
Distance from the Site to Nearest/ Furthest Area of LCA	At its closest point, KK-LCA-A2 is located approx. 0.3km southwest of the nearest proposed turbine (T1).
LCA Key Characteristics and Critical Landscape Factors	***Key Landscape Characteristics:*** › *A sense of enclosure is gained through large, unmaintained hedgerows bounding the roadsides.* › *Fields are generally of a medium size with low trees and moorland vegetation, rendering poor quality pasturelands.*

Kilkenny LCA-A2: Slieveardagh Central Transition Zone	
(Landscape Appraisal of County Kilkenny, - Appendix C, KCDP (2008-2014))	› *Predominantly low vegetation as represented in this unit by moorland and pastureland grasses is generally uniform in appearance, failing to break up vistas, and allowing long distance visibility."* ***Critical Landscape Factors:*** › *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.* › *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.* › *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.*
LCA Capacity for Wind Energy Development	This LCA is given a *"Class 1 - Degraded"* sensitivity rating in the LACK, the lowest of five sensitivity classes assigned to LCAs within County Kilkenny. This sensitivity is described as having *"a high potential to absorb new development."* In relation to land-use compatibility outlined in *Figure 8* of Appendix K, this LCA has areas that are classified as *"Acceptable in Principle"* and *"Open for Consideration"* for wind farm development. In consideration of the above noted classifications and designations, sensitivity to wind farm development is deemed to be **Low**.
Visibility of the Wind Farm site from within the LCA	Primarily partial TV within 5km of this LCA, with pockets of full TV to the south. Viewpoints 03, 06, 11, 12, 14 and 16 are located within this LCA.
Cumulative Context	In a potential future receiving environment, the following proposed Wind Farm would be located within this LCA: › Proposed Gathabawn Wind Farm (1/12 proposed turbines – located on the border with KK – LCA-A2)
Cumulative Effects	While there are no other wind farms located within this LCA (apart from 1 turbine of the proposed Gathabawn Wind Farm on the border of this LCA), the Cumulative Comparative ZTV indicates that this LCA has theoretical visibility of both the Proposed Turbines and other cumulative turbines from adjacent LCAs in a few relatively small areas of close proximity to the Proposed Turbines. As such, some cumulative effects on the character of this LCA will occur from the Proposed Turbines. Cumulative effects that do arise are incorporated into the magnitude of change below.
Magnitude of Change	**Magnitude = Slight.** Rationale: Only the addition of a short proposed wind farm road at the far periphery will materially alter a highly localised portion of the physical fabric of this LCA, with the wider LCA unaffected. In terms of changes to

Kilkenny LCA-A2: Slieveardagh Central Transition Zone	
	the landscape character of this LCA, the greatest effects will occur within a small area at the north-easternmost extent of the LCA where it borders KK – LCA-A (North). Effects on the character of the wider landscape within the LCA is restricted due to visual screening from surrounding landforms and vegetation. For the definition of this rating, refer to Section 1.7.4: Magnitude of Landscape Change in *Appendix 13-1: LVIA Methodology*.
Significance of Effect	**Low × Slight = Minor/Negligible = Not Significant (EPA, 2022)** *"An effect which causes noticeable changes in the character of the environment but without significant consequences."* Refer to Section 1.7.5 Landscape Effects Matrix in *Appendix 13-1: LVIA Methodology.*
Mitigation Factors	› Where theoretical visibility exists within this LCA, it is primarily only partial TV. Consequently, the visibility of the turbines will be limited from within this LCA; › On-site visibility appraisals determined that the dense and largely unmaintained hedgerows which are typical throughout this LCA (see LCA Key Characteristics) will substantially limit actual visibility of the Proposed Turbines from vast areas within this LCA; › The undulating topography critical to this LCA provides a further sense of enclosure and visual screening in the direction of the Proposed Turbines; › As part of the iterative design process, described in Chapter 3 of the EIAR, 3 no. turbines were omitted from the first iteration of the turbine layout before the final proposed turbine layout was determined. This has resulted in a substantial set-back distance between the Proposed Turbines and visual receptors to the west, ensuring that the turbines are not situated within the immediate visual context of Clomantagh Hill when viewed from the west., resulting in reduced impacts throughout this LCA.
Residual Effect (incl. mitigating factors)	**Not Significant (EPA, 2022)** *"An effect which causes noticeable changes in the character of the environment but without significant consequences."*

1.2.5 KK-LCA-A3: Slieveardagh Eastern Transition

Kilkenny LCA-A3: Slieveardagh Eastern Transition	
Map Ref.	KK-LCA-A3
Distance from the Site to Nearest/ Furthest Area of LCA	At its closest point, KK-LCA-A3 is located approx. 0.4km southeast of the nearest proposed turbine (T2). The Proposed 110kV Underground Cabling runs through this LCA.
LCA Key Characteristics and	***Key Landscape Characteristics:*** › *A sense of enclosure is gained through large, unmaintained hedgerows bounding the roadsides.*

Kilkenny LCA-A3: Slieveardagh Eastern Transition	
Critical Landscape Factors *(Landscape Appraisal of County Kilkenny, - Appendix C, KCDP (2008-2014))*	› *Fields are generally of a medium size with low trees and moorland vegetation, rendering poor quality pasturelands.* › *Predominantly low vegetation as represented in this unit by moorland and pastureland grasses is generally uniform in appearance, failing to break up vistas, and allowing long distance visibility."* ***Critical Landscape Factors:*** › *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.* › *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.* › *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.*
LCA Capacity for Wind Energy Development	This LCA is given a *"Class 1 - Degraded"* sensitivity rating in the LACK, the lowest of five sensitivity classes assigned to LCAs within County Kilkenny. This sensitivity is described as having *"a high potential to absorb new development."* In relation to land-use compatibility outlined in *Figure 8* of Appendix K, this LCA has areas that are classified as *"Acceptable in Principle"* and *"Open for Consideration"* for wind energy. In consideration of the above noted classifications and designations, sensitivity to wind farm development is deemed to be **Low**.
Visibility of the Wind Farm site from within the LCA	Primarily full TV throughout, with pockets of no TV to the north. No viewpoints are located within this LCA. Viewpoints 03, 13, and 14 are located in very close proximity to the border of this LCA.
Cumulative Context	There are no other wind farms located within this LCA.
Cumulative Effects	While there is no other wind farms located within this LCA, the Cumulative Comparative ZTV indicates that the majority of this LCA has theoretical visibility of both the Proposed Turbines and other cumulative turbines from adjacent LCAs. As such, some cumulative effects will occur from the Proposed Turbines. Cumulative effects that do arise are incorporated into the magnitude of change below.
Magnitude of Change	**Magnitude = Slight.** **Rationale:** Part of the Proposed 110kV Underground Cabling Route will materially alter the physical fabric of this LCA in the north-east, as well a short stretch of proposed wind farm road in the far west of the LCA, which will both be primarily confined to very small portions of this LCA. Changes to the landscape as a result of the Proposed 110kV Underground Cabling will be temporary and most evident at the local level during the

Kilkenny LCA-A3: Slieveardagh Eastern Transition	
	construction phase. The wider extent of this LCA, beyond the immediate context of the Proposed 110kV Underground Cabling Route and proposed wind farm road will remain unaffected. The addition of the Proposed Turbines in the wider landscape would only result in low-level changes to the overall aesthetics of the landscape views from this LCA. For the definition of this rating, refer to Section 1.7.4: Magnitude of Landscape Change in *Appendix 13-1: LVIA Methodology*.
Significance of Effect	**Low × Slight = Minor/Negligible = Not Significant (EPA, 2022)** *"An effect which causes noticeable changes in the character of the environment but without significant consequences."* Refer to Section 1.7.5 Landscape Effects Matrix in *Appendix 13-1: LVIA Methodology.*
Mitigation Factors	› Despite the widespread theoretical visibility indicated for this LCA, in reality, views towards the Proposed Turbines will be primarily very limited due to unmaintained hedgerows and vegetation which is a typical characteristic of this LCA. › The Proposed Project will not significantly impact upon any of the key scenic or landscape sensitivities of this LCA.
Residual Effect (incl. mitigating factors)	**Not Significant (EPA, 2022)** *"An effect which causes noticeable changes in the character of the environment but without significant consequences."*

1.2.6 KK–LCA-B: Castlecomer Plateau

Kilkenny LCA-B: Castlecomer Plateau	
Map Ref.	KK-LCA-B
Distance from the Site to Nearest/ Furthest Area of LCA	At its closest point, LCA-B is located approx. 11.2km east of the nearest proposed turbine (T10).
LCA Key Characteristics and Critical Landscape Factors *(Landscape Appraisal of County Kilkenny, - Appendix C, KCDP (2008-2014))*	***Key Characteristics:*** › *Rural landscape with many natural and scenic attractions.* › *General land use on the Plateau is pastureland, however, large areas have been planted with coniferous trees.* › *Low vegetation, represented in this unit by grassland, moorland, and generally low hedgerows, provide a uniform appearance in the landscape, failing to break up vistas and allowing long distance visibility. Low vegetation fails to provide an ability to absorb development.* › *Land parcels are medium to large-sized and hedgerows are generally low and well-trimmed.* › *Occasional farmhouses and dispersed scattered housing can be found throughout the area.* › *Gently undulating topography is presented within the upland area of this character unit."*

Kilkenny LCA-B: Castlecomer Plateau	
	Critical Landscape Factors: › *Elevated Vistas: A number of local, third class roads give access to the uplands. Local roads cross the upper and lower slopes of the hills and provide access for established villages within the uplands, e.g. Ballybay, Gortnagap and Courtstown. 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* › *Steep Slopes: Steeply sloping land provides both a potentially increased elevation and an immediate backdrop for development, intensifying its visual prominence over greater distances. 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. Slope often provides an area with its character, and is therefore equally sensitive to development that might impact on that character.* › *Prominent Ridge Lines: 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.* › *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.*
LCA Capacity for Wind Energy Development	This LCA is given a *"Class 4 – Sensitive"* sensitivity rating in the LACK. This is the second highest of five sensitivity classes assigned to LCAs within County Kilkenny. LCAs with this classification are described as having *"some capacity to absorb a limited range of appropriate new developments while sustaining its existing character."* In consideration of the above noted classifications and designations, sensitivity to wind farm development is deemed to be **High**.
Visibility of the Wind Farm site from within the LCA	Primarily no theoretical visibility throughout this LCA with small pockets of full theoretical visibility limited to elevated vantage points. On-site visibility appraisals determined that visibility would occur from elevated vantage points within this LCA. Viewpoints 10 and 17 are located within this LCA.
Cumulative Context	The following wind farm would be located within this LCA in the opposing direction from the Proposed Turbines: › Permitted Ballynalacken Wind Farm (12/12 turbines)

Kilkenny LCA-B: Castlecomer Plateau	
Cumulative Effects	Cumulative landscape effects will occur as the Proposed Turbines to the south (in KK-LCA-A) add to the density of wind energy developments seen from within this LCA. As shown by the Cumulative Comparative ZTV, there are large portions of this LCA that have visibility of both the Proposed Turbines and other cumulative turbines. There are likely to be views in combination and in succession views of the Proposed Turbines and the existing Foyle, Ballybay, Ballincurry, an Cnoc, and Lisheen I-III Wind Farms, and the existing Gurteen Lower Single Wind Turbine, as well as the permitted Ballynalacken, Briskalagh, Foyle Extension, and Farranrory turbines. In a potential future receiving environment, cumulative effects will occur as the Proposed Turbines may be seen in combination with the proposed Gathabawn, Seskin Renewables, and Littleton turbines. All proposed, permitted and existing turbines located outside the LCA are set-back beyond 4km, with the majority beyond 7km. Any effects arising from cumulative turbines are incorporated into the magnitude of change below.
Magnitude of Change (Definition – from Section 1.7.4: Magnitude of Landscape Change in *Appendix 13-1)*	**Magnitude = Slight.** **Rationale:** The addition of the Proposed Turbines in the wider landscape would only result in very low-level changes to the overall aesthetics of the landscape views from this LCA. For the definition of this rating, refer to Section 1.7.4: Magnitude of Landscape Change in *Appendix 13-1: LVIA Methodology*.
Significance of Effect	**High × Slight = 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 1.7.5 Landscape Effects Matrix in *Appendix 13-1: LVIA Methodology.*
Mitigation Factors	› The Proposed Turbines are not located within this LCA and would not materially alter the physical fabric of this LCA; › Given the distance of the LCA from the Proposed Turbines, there will only be views of the Proposed Turbines from isolated elevated locations within this LCA. Where the Proposed Turbines will be visible, they will be viewed as small background elements relative to the landscape, resulting in overall low levels of change to views from this LCA; › The vast majority of the area within this LCA is located beyond 15km from the Proposed Turbines and hence the effects will be mitigated by distance; › A large portion of this LCA that falls within 15km of the Proposed Turbines has no theoretical visibility of the Proposed Turbines.

Kilkenny LCA-B: Castlecomer Plateau	
Residual Effect (incl. mitigating factors)	**Slight (EPA, 2022)** *"An effect which causes noticeable changes in the character of the environment without affecting its sensitivities."*

1.2.7 KK – LCA F1: Kilkenny Northern Basin

Kilkenny LCA F1: Kilkenny Northern Basin	
Map Ref.	KK-LCA-F1
Distance from the Site to Nearest/ Furthest Area of LCA	At its closest point, LCA-F1 is located a18pprox. 5.8km east of the nearest proposed turbine (T2). The Proposed 110kV Underground Cabling runs through this LCA.
LCA Key Characteristics and Critical Landscape Factors *(Landscape Appraisal of County Kilkenny, - Appendix C, KCDP (2008-2014))*	***Key Characteristics:*** › *"The terrain is generally smooth although undulating in certain areas, with vegetative/wooded slopes rising from the river valley.* › *Sub-area F1 has views of the River Nore Valley and both the Slieveardagh and Castlecomer Hills.* › *The area is perceived as being normal in landscape terms, with no special scenic or amenity values in general.* › *This low-lying area has open mountain views.* › *The predominant land uses being pastures (i.e. sheep grazing) and tillage.* › *The land parcels are regular in shape, with scrub hedgerows and intertwined hedgerow trees."* ***Critical Landscape Factors:*** › *Smooth Terrain: Smooth terrain and the generally gentle topography and landform that characterised this landscape character unit, allows vistas over long distances since the planar surface does not break up fore and middle ground. As a result development can have a disproportionate visual impact in such terrain, due to an inherent inability to be visually absorbed* › *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* › *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* › *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.*

Kilkenny LCA F1: Kilkenny Northern Basin	
LCA Capacity for Wind Energy Development	This LCA is given a *"Class 3-Normal"* sensitivity rating in the LACK, the middle of five sensitivity classes. Areas classified under this sensitivity rating are described as being *"a common character type with a potential to absorb a wide range of new developments."* Additionally, this LCA is described as having *"no significant landscape value."* The River Nore flows through this LCA, but the river valley itself is designated as a separate LCA and is therefore assessed separately in Section 1.2.8 below. The sensitivity of this LCA as outlined in the LACK is low in comparison with other LCAs in the county. In consideration of the above noted classifications and designations, sensitivity to wind farm development is deemed to be **Low**.
Visibility of the Wind Farm site from within the LCA	There is primarily full TV within this LCA. However, on-site visibility appraisals determined that visibility will be largely constrained due to the dense vegetation within the low-lying landscape. Viewpoints 04 and 15 are located within this LCA.
Cumulative Context	In a potential future receiving environment, the following proposed wind farms would be located within this LCA: › Proposed Seskin Renewables Wind farm (1/8 proposed turbines – located on the border with K-LCA-A (north))
Cumulative Effects	As shown by the Cumulative Comparative ZTV, the majority of this LCA comprises visibility of both the Proposed Turbines and other cumulative turbines. As such, some cumulative effects on the character of this LCA will occur from the Proposed Turbines. Cumulative effects that do arise are incorporated into the magnitude of change below.
Magnitude of Change	**Magnitude = Slight.** **Rationale:** Part of the Proposed 110kV Underground Cabling Route will temporarily materially alter the physical fabric of this LCA at a local level during the construction phase, discussed in 13.7.2.1 of Chapter 13, and will not permanently alter the character of the landscape. The wider extent of this LCA, beyond the immediate context of the Proposed 110kV Underground Cabling Route will remain unaffected. The addition of the Proposed Turbines in the wider landscape would only result in low-level changes to the overall aesthetics of the landscape views from this LCA. For the definition of this rating, refer to Section 1.7.4: Magnitude of Landscape Change in *Appendix 13-1: LVIA Methodology*.
Significance of Effect	**Low × Slight = Minor/Negligible = Not Significant (EPA, 2022)** *"An effect which causes noticeable changes in the character of the environment but without significant consequences."* Refer to Section 1.7.5 Landscape Effects Matrix in *Appendix 13-1: LVIA Methodology.*
Mitigation Factors	› Despite the widespread theoretical visibility indicated for this LCA, in reality, views towards the Proposed Turbines will be limited due to the shelter vegetation, including tall hedgerows in the direction of the Proposed Turbines;

Kilkenny LCA F1: Kilkenny Northern Basin	
	› The Proposed Project will not significantly impact upon any of the key scenic or landscape sensitivities of this LCA.
Residual Effect (incl. mitigating factors)	**Not Significant (EPA, 2022)** *"An effect which causes noticeable changes in the character of the environment but without significant consequences."*

1.2.8 KK – LCA H: Nore Valley (South)

Kilkenny LCA H: Nore Valley (South)	
Map Ref.	KK-LCA-H
Distance from the Site to Nearest/ Furthest Area of LCA	At its closest point, LCA-H is located approx. 5.7km east of the nearest proposed turbine (T2). The Proposed 110kV Underground Cabling Route runs through this LCA.
LCA Key Characteristics and Critical Landscape Factors *(Landscape Appraisal of County Kilkenny, - Appendix C, KCDP (2008-2014))*	*Key Characteristics:* › *The Nore Valley is an extensive low-lying area';* › *'The terrain is undulating with vegetative/wooded slopes, rising from the river valley';* › *'This lowland unit, characterised by smooth terrain and low vegetation, has extensive open mountain views';* › *'The slopes of the Nore Valley conform to the general river valley pattern';* › *'Natural vegetation (i.e. native trees and shrubs) generally occurs on the floodplain slopes and riverbanks';* › *'Grassland is common on gentle slopes and floodplain levels';* › *'Some stretches of the valley have deciduous trees lining the slopes with a slow progression into pasturelands';* › *'The area is perceived as being scenic and special in landscape terms, particularly to the north of Kilkenny City.'* ***Critical Landscape Factors:*** › *Smooth Terrain: Smooth terrain and the generally gentle topography and landform that characterised this landscape character unit, allows vistas over long distances since the planar surface does not break up fore and middle ground. As a result development can have a disproportionate visual impact in such terrain, due to an inherent inability to be visually absorbed* › *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.* › *Localised River Views: Both the River Nore and the River Suir delimit this character unit. Due to the low-lying but undulating nature of this area, views of the river valleys are available from the high points at some of the local roads. Visual intrusion, which will interrupt and reduce the integrity of the river valley should be avoided along this natural linear feature.*

Kilkenny LCA H: Nore Valley (South)	
	› *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.* › *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.*
LCA Capacity for Wind Energy Development	This LCA is given a *"Class 5 – Sensitive"* sensitivity rating in the LACK, the highest of five sensitivity classes. In addition, as identified in Ch.13, this LCA corresponds to the designated 'Highly Scenic and Significant Visual Amenity Value' landscape area of Kilkenny, which includes other landscape areas outside the LCA Study Area; however, this designation does not pertain specifically to sensitivity to wind energy development. The LCA follows the path of the Nore River, which is easily accessible by road. Due to the low-lying nature of this area, many views of the river valley are available from the local roads and from viewing points located along the valley trail. The main concern for natural linear features such as this is to avoid visual intrusion by development, which will interrupt and reduce the integrity of the river valley. As outlined in the Kilkenny WES, this LCA corresponds with land area classified as *"Not Normally Permissible".* In consideration of the above noted classifications and designations, sensitivity to wind farm development is deemed to be **High**.
Visibility of the Wind Farm site from within the LCA	There is primarily full TV within this LCA. However, on-site visibility appraisals determined that visibility will be largely constrained due to the dense vegetation within the low-lying landscape. Viewpoints 04 and 15 are located in very close proximity to the border of this LCA.
Cumulative Context	There are no other wind farms located within this LCA.
Cumulative Effects	While there is no other wind farms located within this LCA, the Cumulative Comparative ZTV indicates that the majority of this LCA has theoretical visibility of both the Proposed Turbines and other cumulative turbines from adjacent LCAs. As such, some cumulative effects will occur from the Proposed Turbines. Cumulative effects that do arise are incorporated into the magnitude of change below.
Magnitude of Change	**Magnitude = Slight.** **Rationale:** Part of the Proposed 110kV Underground Cabling Route will temporarily materially alter the physical fabric of this LCA at a local level during the construction phase, discussed in 13.7.2.1 of Chapter 13, and will not permanently alter the character of the landscape. The wider extent of this LCA, beyond the immediate context of the Proposed 110kV

Kilkenny LCA H: Nore Valley (South)	
	Underground Cabling Route will remain unaffected. The addition of the Proposed Turbines in the wider landscape would only result in low-level changes to the overall aesthetics of the landscape views from this LCA. For the definition of this rating, refer to Section 1.7.4: Magnitude of Landscape Change in *Appendix 13-1: LVIA Methodology*.
Significance of Effect	**High× Slight = 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 1.7.5 Landscape Effects Matrix in *Appendix 13-1: LVIA Methodology.*
Mitigation Factors	› The Proposed Turbines are not located within this LCA and would not materially alter the physical fabric of this LCA; › Along the banks of the River Nore, there will be limited visibility of the Proposed Turbines due to visual screening from vegetation along the river banks. › Despite the widespread theoretical visibility indicated for this LCA, in reality, views towards the Proposed Turbines will be largely limited due to unmaintained hedgerows and vegetation. › The Proposed Turbines will not significantly impact upon any of the key scenic or landscape sensitivities of this LCA.
Residual Effect (incl. mitigating factors)	**Slight (EPA, 2022)** *"An effect which causes noticeable changes in the character of the environment without affecting its sensitivities."*

1.3 Counties Tipperary and Laois

In the tables of this section, reference is made to the Laois County Development Plan 2021-2027 (LCDP), and the Tipperary County Development Plan 2022-2028 (TCDP).

1.3.1 L-LCA-1: Mountains, Hills and Uplands

Laois LCA 1: Mountains, Hills and Uplands	
Map Ref.	L-LCA-1
Distance from the Site to Nearest/ Furthest Area of LCA	At its closest point, L-LCA-1 is located approx. 3.6km north of the nearest proposed turbine (T8).
LCA Key Characteristics *(Laois County Development Plan*	› *"Hills and uplands lacking dramatic peaks.* › *There are panoramic views of lowland landscapes from these hills and uplands.* › *Important historic and archaeological features.* › *Extensive mono-type afforestation and marginal agricultural areas."*

Laois LCA 1: Mountains, Hills and Uplands	
2021-2027, Appendix 6)	
LCA Capacity for Wind Energy Development	In Table 11-6 in the LCDP 2021-2027, L-LCA-1 is divided into two sensitivity categories as follows based on the landscape types given in the LCA name. 'Hills and Uplands' are given a 'Medium' sensitivity with the capacity to accommodate *"a range of uses without adverse effects"* to local sensitivities, while 'Mountains' are assigned with a 'High' sensitivity and a reduced capacity. As the parts of this LCA that are situated in the LVIA Study Area are the upland/hill settings of Capponellan Hill and Cullahill Mountain, on balance, the category of 'Hills and Uplands' are most appropriate due to the undulating nature within this LCA. Therefore, L-LCA-1 is given a 'Medium' sensitivity rating, the middle of three sensitivity ratings assigned to LCAs within County Laois. On balance, the sensitivity of L-LCA-1 to wind farm development is deemed to be **Medium**.
Visibility of the Wind Farm site from within the LCA	A small portion of this LCA has full theoretical visibility and is located within 5km of the Proposed Turbines. On site appraisals of this area found that actual visibility of the Proposed Turbines is likely to be high. This is due to a lack of vegetation and flat agricultural land. Viewpoints 02 and 19 are located within this LCA. Beyond 5km from the Proposed Turbines, there is one small area of full theoretical visibility with the vast remainder of the LCA have little to no theoretical visibility.
Cumulative Context	In a potential future receiving environment, the following proposed Wind Farms would be located within this LCA: › Proposed Seskin Renewables Wind farm (2/8 proposed turbines)
Cumulative Effects	Cumulative landscape effects will occur as the Proposed Turbines to the south (in KK-LCA-A) add to the density of wind energy developments seen from within this LCA. As shown by the Cumulative Comparative ZTV, there are portions of this LCA within 5km of the Proposed Turbines that have visibility of both the Proposed Turbines and other cumulative turbines. Due to screening from Cullahill Maintain and Knockmannon Hill, there are large sections of this LCA that only have theoretical visibility of cumulative wind farms. There are likely to be views in combination and in succession views of the Proposed Turbines and the existing Lisdowney turbines. In a potential future receiving environment, cumulative effects will occur as the Proposed Turbines may be seen in combination with the proposed Gathabawn turbines and with the proposed Seskin Renewables turbines. Cumulative effects that do arise are incorporated into the magnitude of change below.

Laois LCA 1: Mountains, Hills and Uplands	
Magnitude of Change	**Magnitude = Slight.** **Rationale:** No part of the Proposed Project will materially alter the physical fabric of this LCA, however, the addition of the Proposed Turbines will add to the cumulative context in the surrounding landscape from the sensitive upland areas. For the definition of this rating, refer to Section 1.7.4: Magnitude of Landscape Change in *Appendix 13-1: LVIA Methodology*.
Significance of Effect	**Medium × Slight = Minor = "Slight" (EPA, 2022)** *"An effect which causes noticeable changes in the character of the environment without affecting its sensitivities."* Refer to Section 1.7.5 Landscape Effects Matrix in *Appendix 13-1: LVIA Methodology.*
Mitigation Factors	› Large areas within the parts of this LCA within the LCA Study Area have no theoretical visibility, with further screening provided by the vegetation existent within the landscape. Therefore, the greatest effects on landscape character will be localised to parts of the LCA in closer proximity to the Proposed Turbines (i.e. within 10km). › Previous design iterations of the Proposed Project resulted in the removal of 3 turbines and relocation of turbines from the southern slopes of Spa Hill, resulting in reducing the horizontal extent of the Proposed Turbines from receptors throughout this LCA. › The Proposed Development aligns with the future baseline trend of wind energy development occurring within this LCA.
Residual Effect (incl. mitigating factors)	**"Slight"** *"An effect which causes noticeable changes in the character of the environment without affecting its sensitivities."*

1.3.2 L-LCA-2: Lowland Agricultural Areas

Laois LCA 2: Lowland Agricultural Areas	
Map Ref.	L-LCA-2
Distance from the Site to Nearest/ Furthest Area of LCA	At its closest point, L-LCA-1 is located approx. 5.6km north of the nearest proposed turbine (T7).
LCA Key Characteristics *(Laois County Development Plan*	› *"Comprised primarily of pastoral and tillage agriculture;* › *Generally a flat open landscape with long range views towards the uplands;* › *Large scale fields generally bounded by deciduous hedgerows containing mature trees;* › *More extensively developed than other Laois LCTs;*

Laois LCA 2: Lowland Agricultural Areas	
2021-2027, Appendix 6)	› *An enclosed character with well-treed road corridors, dense hedgerows and parkland and areas of woodland.*
LCA Capacity for Wind Energy Development	'Lowland Agricultural Areas' are given a **Low** sensitivity with the capacity to accommodate *"a wide range of uses without significant adverse effects on the appearance or character of the area".* The 'Low' sensitivity rating is the lowest of three sensitivity ratings assigned to LCAs within County Laois.
Visibility of the Wind Farm site from within the LCA	The western and northern portions of this LCA within 15km from the Proposed Project has mostly full theoretical visibility, with partial TV occupying most of the eastern portion, with small pockets of no TV in the south-east. On site appraisals of this area found that actual visibility of the Proposed Turbines is likely to be intermittent due to flat agricultural land bordered by mature hedgerows, including at roadsides. Viewpoint 19 is located in proximity to the LCA and is representative of similar views from this LCA, but views from L – LCA- 2 would be further set-back and more heavily vegetated.
Cumulative Context	There are no other wind farms located within this LCA.
Cumulative Effects	Cumulative landscape effects will occur as the Proposed Turbines to the south (in KK-LCA-A) add to the density of wind energy developments seen from within this LCA. As shown by the Cumulative Comparative ZTV, there are large portions of this LCA that have visibility of both the Proposed Turbines and other cumulative turbines. There are likely to be views in combination and in succession views of the Proposed Turbines and the existing Bruckana, Foyle, Ballybay, Ballincurry, an Cnoc, and Lisheen I-III Wind Farms, and the existing Gurteen Lower Single Wind Turbine, as well as the permitted Ballynalacken, Foyle Extension, and Farranrory turbines. In a potential future receiving environment, cumulative effects will occur as the Proposed Turbines may be seen in combination with the proposed Gathabawn, Seskin Renewables, and Littleton turbines. Any effects arising from cumulative turbines are incorporated into the magnitude of change below.
Magnitude of Change	**Magnitude = Slight.** **Rationale:** No part of the Proposed Project will materially alter the physical fabric of this LCA. Views are largely restricted by vegetation, even in areas with full theoretical visibility, and large portions of the LCA with theoretical visibility are set-back beyond 10 km. The addition of the Proposed Turbines would add to the cumulative context within the landscape. For the definition of this rating, refer to Section 1.7.4: Magnitude of Landscape Change in *Appendix 13-1: LVIA Methodology*.
Significance of Effect	**Low × Slight = Minor/Negligible = "Not Significant" (EPA, 2022)**

Laois LCA 2: Lowland Agricultural Areas	
	"An effect which causes noticeable changes in the character of the environment but without significant consequences." Refer to Section 1.7.5 Landscape Effects Matrix in *Appendix 13-1: LVIA Methodology.*
Mitigation Factors	› Given the distance of large portions of the LCA from the Proposed Turbines, there will only be views of the Proposed Turbines from lowland locations without intervening vegetation, which is dense within this LCA. Where turbines of the Proposed Project will be visible, they will be viewed as small background elements, with a consequently low level of change to landscape character. › The Proposed Development aligns with the future baseline trend of wind energy development occurring to the south of this LCA.
Residual Effect (incl. mitigating factors)	**"Not Significant"** *"An effect which causes noticeable changes in the character of the environment but without significant consequences*

1.3.3 L-LCA-3: Rolling Hills Areas

Laois LCA-3: Rolling Hills Areas	
Map Ref.	L-LCA-3
Distance from the Site to Nearest/ Furthest Area of LCA	At its closest point, L-LCA-1 is located approx. 6.1km north-west of the nearest Proposed Turbine (T07).
LCA Key Characteristics *(Laois County Development Plan 2021-2027, Appendix 6)*	› *"Undulating and variable topography, generally ranging from 70 meters to 90 meters.* › *Complex rolling landform with a mosaic of tillage and pasture agriculture, pockets of wetlands and raised bog; small coniferous plantations and occasional deciduous copses.* › *Field boundaries include tree-rich hedgerows and some post-and-wire fencing.* › *Settlement is relatively frequent but generally dispersed, with one-off housing around settlements."*
LCA Capacity for Wind Energy Development	Table 11.6 of the LCDP 2021-2027 assigns Rolling Hill Areas a 'Medium' landscape sensitivity, the middle of three sensitivity categories in the LCDP. This category has "*capacity to accommodate a range of uses without significant adverse effects*" on landscape character, subject to localised sensitivity factors. On balance, sensitivity to wind farm development is deemed to be **Medium**.
Visibility of the Wind Farm site from within the LCA	As indicated by the ZTV, the portion of L-LCA-3 within the 15km LCA Study Area has predominantly full theoretical visibility of the Proposed Turbines, with scattered areas of partial theoretical visibility and localised

Laois LCA-3: Rolling Hills Areas	
	areas without no theoretical visibility. Some areas have mature vegetation which visually screens the Proposed Turbines, though some areas, particularly with 10km, have open visibility in the direction of the Proposed Turbines due to low vegetation and relatively flat agricultural areas. There are no viewpoints located within this LCA.
Cumulative Context	The following existing Wind Farms are located within this LCA: › Existing Bruckana Wind Farm (1/13 turbines) › Existing Lisheen III Wind Farm (2/8 turbines)
Cumulative Effects	Cumulative landscape effects will occur as the Proposed Turbines add to the density of wind energy developments seen from within this LCA. As shown by the comparative ZTV, there are large portions of this LCA that have visibility of both the Proposed Turbines and other cumulative turbines. There may be views in combination and in succession views of the Proposed Turbines and the existing Bruckana, Ballybay, an Cnoc, and Lisheen I-III Wind Farms, and the existing Gurteen Lower Single Wind Turbine, as well as the permitted Ballynalacken, and Foyle Extension turbines. In a potential future receiving environment, cumulative effects may arise as the Proposed Turbines may be seen in combination with the proposed Gathabawn, Seskin Renewables, and Littleton turbines. Any effects arising from cumulative turbines are incorporated into the magnitude of change below.
Magnitude of Change	**Magnitude = Slight.** **Rationale**: No part of the Proposed Project will materially alter the physical landscape of this LCA. The Proposed Turbines will be experienced in the wider landscape beyond intervening rolling agricultural land, and actual visibility will be reduced in many locations by mature hedgerows, woodland and rolling hills. Visibility is most likely to occur from the elevated vantage points with unobstructed views in the direction of the Proposed Turbines. The addition of the Proposed Turbines would add to the cumulative context within the landscape. For the definition of this rating, refer to Section 1.7.4: Magnitude of Landscape Change in Appendix 13-1: LVIA Methodology.
Significance of Effect	**Medium × Slight = Minor = Slight (EPA, 2022).** "*An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.*" Refer to Section 1.7.5 Landscape Effects Matrix in Appendix 13-1: LVIA Methodology.

Laois LCA-3: Rolling Hills Areas	
Mitigation Factors	› The Proposed Development aligns with the future baseline trend of wind energy development occurring within this LCA; › Given the distance of the LCA from the Proposed Turbines, there will only be views of the Proposed Turbines from elevated locations or where low vegetation allows long-distance views within this LCA; › Where turbines of the Proposed Project will be visible, they will be viewed as background elements, with a consequently low level of change to landscape character.
Residual Effect (incl. mitigating factors)	**Slight (EPA, 2022).** *"An effect which causes noticeable changes in the character of the environment without affecting its sensitivities."*

1.3.4 T-LCA-9: Littleton Farmland Mosaic and Marginal Peatland

Tipperary LCA-9: Littleton Farmland Mosaic and Marginal Peatland	
Map Ref.	T-LCA-9
Distance from the Site to Nearest/ Furthest Area of LCA	At its closest point, T-LCA-9 is located approx. 6km southwest of the nearest proposed turbine (T5).
LCA Key Characteristics *(Tipperary County Development Plan 2022-2028, Volume 3)*	› *"The view northwards towards the level and extensive Littleton peatlands.* › *The view southwards which is truncated by the steeply rising and visually outstanding Slieveardagh escarpment. The extremes in quality of lands from poorly productive marginal peatland to rich pastoral land.* ›
LCA Capacity for Wind Energy Development	This LCA is given a *"Class 1 – Normal Sensitivity"* designation in the Landscape Character Assessment of County Tipperary (LCAT), which is Appendix 3 of Volume 3 of the Tipperary County Development Plan 2022-28. This is the second lowest of six sensitivity classes assigned to LCAs in County Tipperary. This sensitivity is described as having a "*low sensitivity to change."* The LCAT also notes, "*the landscape is capable of absorbing considerable change without detriment."* The objective for this type of sensitivity in the LCAT is as follows: "*To facilitate development that continues established patterns of use and settlement."* In relation to land-use compatibility outlined in *Table 6.2* of the LCAT, this LCA is classified as having "Medium" compatibility with windfarm land use, which is the second lowest compatibility classifications assigned to an LCA in relation to wind farms in the LCAT.

Tipperary LCA-9: Littleton Farmland Mosaic and Marginal Peatland	
	In consideration of the above noted classifications and designations, sensitivity to wind farm development is deemed to be **Low**.
Visibility of the Wind Farm site from within the LCA	Large areas of this LCA have full theoretical visibility of the Proposed Turbines, some large areas of partial theoretical visibility due to visual screening from Clomantagh Hill, and with small pockets of no theoretical visibility scattered throughout due to undulating topography in the landscape. On site appraisals found that there is likely to be actual visibility within large areas of the south-east portion of this LCA, within 10km of the Proposed Turbines. Viewpoint 20 is located in very close proximity to the border of this LCA.
Cumulative Context	In a potential future receiving environment, the following proposed Wind Farms would be located within this LCA: › Proposed Littleton Wind farm (7/11 proposed turbines)
Cumulative Effects	As shown by the Cumulative Comparative ZTV, the majority of this LCA comprises visibility of both the Proposed Turbines and other cumulative turbines. Similar to T-LCA-5 and T-LCA-8, there are small pockets throughout this LCA which only have theoretical visibility of cumulative turbines. This is due to topographical screening from terrain undulations. There are likely to be views in combination and in succession views of the Proposed Turbines and the existing Bruckana, Ballybay, Ballincurry, an Cnoc, and Lisheen I-III Wind Farms, and the existing Gurteen Lower Single Wind Turbine, as well as the permitted and Farranrory turbines. In a potential future receiving environment, cumulative effects will occur as the Proposed Turbines may be seen in combination with the proposed Littleton and Gathabawn turbines. Cumulative effects that do arise are incorporated into the magnitude of change below.
Magnitude of Change	**Magnitude = Slight.** **Rationale:** No part of the Proposed Project will materially alter the physical fabric of this LCA. There is partial screening from topography for large portions of the LCA, and the areas likely to have actual visibility are set-back outside 5 km. The addition of the Proposed Turbines would add to the cumulative context within the landscape. For the definition of this rating, refer to Section 1.7.4: Magnitude of Landscape Change in *Appendix 13-1: LVIA Methodology*.
Significance of Effect	**Low × Slight = Minor/Negligible = "Not Significant" (EPA, 2022)** *"An effect which causes noticeable changes in the character of the environment but without significant consequences.."*

Tipperary LCA-9: Littleton Farmland Mosaic and Marginal Peatland	
	Refer to Section 1.7.5 Landscape Effects Matrix in *Appendix 13-1: LVIA Methodology.*
Mitigation Factors	› The views mentioned in the key characteristics section of this LCA are not facing in the direction of the Proposed Turbines; › The Proposed Development aligns with the future baseline trend of wind energy development occurring within this LCA; › Given the distance of the LCA from the Proposed Turbines, there will only be views of the Proposed Turbines from isolated elevated locations or where low vegetation allows long-distance views within this LCA. Where turbines of the Proposed Project will be visible, they will be viewed as small background elements, with a consequently low level of change to landscape character.
Residual Effect (incl. mitigating factors)	**"Not Significant"** *"An effect which causes noticeable changes in the character of the environment but without significant consequences."*