



APPENDIX 13-2

LANDSCAPE CHARACTER ASSESSMENT TABLES

Maughanaclea Renewable Energy Development, Co. Cork

Appendix 13-2 Landscape Character Assessment Tables



1. LANDSCAPE CHARACTER ASSESSMENT TABLES

This appendix comprises an impact assessment addressing the landscape effects of the Proposed Project upon each designated Landscape Character Type (LCT) scoped in for assessment in Section 13.4.5.1 of Chapter 13: Landscape and Visual, of this EIAR.

The impact assessment for each LCT is set out in its own table below. In the tables, the term ‘Site’ refers to the Proposed Project Site and the discussion of theoretical visibility in each LCT refers to Zone of Theoretical Visibility (ZTV) mapping as outlined in Section 13.3 Visibility of the Proposed Project of the chapter.

It is recommended that the impact assessments in this appendix are read in conjunction with Figure 13-11: ZTV & Designated LCTs Map in Chapter 13. Figure 13-11 illustrates the boundary of each LCT and is overlain by the Half-Blade ZTV, which extends to the 15km LCA Study Area for the assessment of effects on designated LCTs; the brief and full methodologies for determining the LCA Study Area boundary are provided respectively in Section 13.2.2 ‘Scope and Definition of LVIA Study Area’ of the main chapter and in Section 1.4 of the same name 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 Section 1.7.5 ‘Landscape Effects Assessment Matrix’ in Appendix 13-1.

1.1 Landscape Character Areas

LCT 15a – Ridged and Peaked Upland (Mullaghanish to Millstreet)	
Distance from site to Nearest/Furthest Area of LCT	The proposed turbines are located within this LCT. At its furthest point, this LCT extends 15km north-east from the nearest proposed turbine.
LCT Key Characteristics <i>(Cork County Draft Landscape Strategy 2007)</i>	<ul style="list-style-type: none"> › “The ridged, peaked and forested upland landscape type flanks much of the mid-western boundary of County Cork, from the vicinity of Bantry in the south to Millstreet in the north. This landscape type has been glaciated and comprises a fairly rugged and rolling mountainous topography at a relatively high elevation. › The area around the Cousane Gap provides a good example of this landscape type which is inclined towards the rugged whereas the southern slopes of the Boggeragh Mountains further to the north in type 15B are a somewhat smoother example, thus adding to the openness of the moorland. These are often delineated by tight gorse hedgerows, walls, banks or post and wire fencing and punctuated by coniferous or broadleaf shelterbelts around small farmsteads. › The landscape, with its rapid and steep rising and falling, seems to tumble down along the valleys. The rugged and diverse landcover, involving moorland, heath and scrub, lends a strong sense of the naturalistic. › Urban settlements tend to be located on lower ground and include Ballingearry, Inchigeelagh.”
Landscape Sensitivity to Wind Farm	Landscape sensitivity of this LCT is discussed in <i>Section 13.4.1.1.3</i> of Chapter 13. <i>Appendix F</i> of the CCDP categorised the landscape of this

LCT 15a – Ridged and Peaked Upland (Mullaghanish to Millstreet)	
Development	<p>LCT to be <i>High</i> value, <i>High sensitivity</i> and of local importance. This LCT is not designated as a High-Value Landscape (HVL) in the CCDP. Therefore, the local planning policy does not give it the highest landscape value designation, nor does it designate it to be an LCT of county, or national importance. This combination of classifications sit within the mid-range of overall value, sensitivity and importance compared with all other Co. Cork LCTs (also calibrated within a National landscape sensitivity context). Furthermore, as discussed in <i>Section 13.4.1.1.2</i> of Chapter 13, all of the proposed turbines are located within an area classified as ‘<i>Open to Consideration</i>’, as is the majority of this LCT in the <i>Wind Energy Strategy of County Cork</i>.</p> <p>The large scale, sparse population and land use characteristics such as commercial forestry make this LCT a highly suitable landscape for accommodating wind energy development, giving it a low susceptibility to change, as evidenced by the acceptability of wind energy development in this LCT.</p> <p>Overall, in consideration of the above noted classifications, designations and landscape characteristics, the sensitivity of this LCT to wind farm development is deemed to be Medium.</p>
Visibility of the Proposed Project within the LCT	<p>There are patches of full to partial theoretical visibility within this LCT within 5km of the proposed turbines. However, large sections of the LCT have no theoretical visibility of the proposed turbines due to the well-defined ridgelines throughout the mountainous terrain of this LCT which cause visual screening of the proposed turbines from large areas. Beyond 5km, theoretical visibility within the LCT is limited to elevated vantage points within the landscape.</p> <p>Viewpoints 3, 5, 6, 7, 10, 11, 12, 14, and 16 are located within this LCT.</p>
Cumulative Context	<p>The existing Shehy More, Cleanrath, and Derragh Wind Farms are situated within this LCT. In addition, the permitted Carrigarierk Extension, the proposed Gortloughra Wind Farm, and the proposed Curraglass Wind Farm are also located within this LCT. One turbine of the permitted Gortyrhillly Wind Farm is situated within this LCT.</p> <p>The proposed Dereenacreenig West WF is located along the boundary of LCT 15a, adjacent LCT 9.</p> <p>The existing Carrigarierk Wind Farm itself is positioned along the boundary of LCT 15a, adjacent to LCT 12b.</p>
Cumulative Landscape Effects	<p>Overall, as illustrated by the Cumulative Comparative ZTV, the majority of areas within 5 km of the proposed turbines have theoretical visibility of both the proposed and cumulative turbines. However, to the north-east of the proposed turbines, beyond Doughill, Douce and Shehy Beg Mountains, theoretical visibility is predominantly limited to cumulative turbines only, as the LCT extends out to 15km. A few small pockets of only the proposed turbine theoretical visibility exist within this LCT.</p> <p>Given the existing density of wind energy development within this LCT, and extent of the proposed turbines, cumulative landscape effects are anticipated</p>

LCT 15a – Ridged and Peaked Upland (Mullaghanish to Millstreet)	
	from the addition of the Proposed Project within this LCT. However, the Cumulative Comparative ZTV indicates that the proposed turbines introduce only very few new areas from which wind energy would become visible for the first time.
Magnitude of Change <i>(Definition – from Section 1.5.2.2 of Appendix 13-1)</i>	<p>Magnitude = Moderate.</p> <p>Rationale: The Proposed Project will alter the physical fabric of the landscape within this LCT, with changes localised to the topographical features of the Maughanaclea Hills and the Shehy Beg Mountains. In terms, of landscape character, the greatest effects will occur in close proximity to the Proposed Project (within 5km of the proposed turbines). Effects on the character of the wider landscape within the LCT is restricted due to visual screening from surrounding landforms and ridgelines, and visibility only occurs from very elevated vantage points from more distant locations within the LCT.</p> <p>Therefore, the Proposed Project is considered to have an overall moderate effect on the overall landscape character of this LCT.</p>
Significance of Effect	<p>Medium × Moderate = Moderate/Minor = Moderate (EPA, 2022) <i>“An effect that alters the character of the environment in a manner consistent with existing and emerging baseline trends”.</i></p> <p>Refer to Section 1.7.5 ‘Landscape Effects Matrix’ in <i>Appendix 13-1: LVIA Methodology</i>.</p>
Mitigation Factors	<ul style="list-style-type: none"> › The proposed turbines and development infrastructure will only materially alter a very localised portion of LCT 15a; › The majority of this LCT’s land area is designated as ‘Open to Consideration’ for wind energy development by the Wind Energy Strategy of County Cork, including the location of the proposed turbines; › This is landscape of large scale, comprising marginal upland and a sparse settlement pattern, it is a landscape which can effectively accommodate wind energy development, as evidenced by the acceptability of other wind energy development in other areas of the LCT. › Given the nature of mountainous landscape of this LCT with large well-defined ridgelines and landforms, there is a very limited spread of theoretical visibility within the entirety of this LCT. Visibility will be primarily limited to locations within 5km from the proposed turbines. Beyond 5km, visibility will be limited to elevated vantage points within this LCT; › The Proposed Grid Connection is entirely underground and thus will not affect key landscape character characteristics or have long-term effects; › Dense hedgerows and scrub vegetation, which are typical throughout this LCT (See LCT Key Characteristics) will limit actual visibility of the proposed turbines within 5km of the proposed turbines.

LCT 15a – Ridged and Peaked Upland (Mullaghanish to Millstreet)	
Residual Landscape Effect (incl. mitigating factors)	Moderate (EPA, 2022) <i>“An effect that alters the character of the environment in a manner consistent with existing and emerging baseline trends”.</i>

LCT 4 – Rugged Ridge Peninsulas (Castletownbere-Bantry-Schull) (HVL)	
Distance from site to Nearest/Furthest Area of LCT	At its closest point, this LCT is located 400m west from the nearest proposed turbine (T14).
LCT Key Characteristics <i>(Cork County Draft Landscape Strategy 2007)</i>	<ul style="list-style-type: none"> › <i>“This landscape type is located in the extreme southwestern corner of Ireland. The predominant components of this landscape type include rocky peninsulas such as Mizen Head, Beara and Sheep’s Head, separated by drowned valleys and relatively low-lying bays such as Bantry, Dunmanus and Roaringwater Bay. The high ridges and mountainous peaks of the peninsulas, such as Hungry Hill, are characterised by a jagged profile and include the occasional corrie lake and steep pass while others, notably on the Mizen Head peninsula, are more rounded with occasional rock outcrops and streams. The same variety and ruggedness characterises much of the shoreline, with rocky promontories and islands extending out into the sea. The sheltered recesses of the bay areas typically comprise flatter terrain extending inland and rising to low ridges and hills, including drumlins within Bantry Bay. Roaringwater Bay includes many small islands, including Shirkin Island, while Bantry Bay includes the notably larger Bere Island and Whiddy Island. The exceptional depth of Bantry Bay provides a natural harbour, which can accommodate large ocean-going tankards, while large metal cylinders are a significant feature in this coastal landscape.</i> › <i>Typically, the rocky peninsulas comprise a mix of moorland, some relatively fertile patches of farmland and woodland including some smaller patches of coniferous plantations on higher ground. Fields of regular shape are more prevalent inland on the flatter ground but become more irregularly shaped and less fertile on the slopes of the surrounding hills, and include patches of bracken, rush and scrub as well as a mix of broadleaf hedgerows and coniferous shelterbelts.</i> › <i>Farmsteads are scattered on lower ground and comprise small houses and outhouses, with towns, villages and hamlets located along the coast, with larger examples including Castletownbere, Bantry and Skull, and the villages of Allihies and Eyeries which provide a particular feature in the landscape due to the varied colour of their buildings. The combination of exceptionally mild microclimate in this area of Ireland and the fertile ground in the bays has resulted in cultivated exotic gardens, including the gardens on Garinish Island near Glengarriff, which are of international renown and adds to the natural beauty of the landscape. To the east and in bays offering shelter, the coastline is less rugged and predominantly fertile and given to dairying and some tillage.”</i>
Landscape Sensitivity to Wind Farm	The CCDP has categorised both the landscape value of this LCT, and the landscape sensitivity of this LCT to be Very High.

LCT 4 – Rugged Ridge Peninsulas (Castletownbere-Bantry-Schull) (HVL)	
Development	<p>The CCDP also designates this LCT to be of National Landscape Importance. As noted in <i>Section 13.4.1.1.3</i> of Chapter 13, given the sensitivity designations for this LCT, this LCT is designated as a High Value Landscape (HVL) in the CCDP.</p> <p>In consideration of the above noted classifications and designations, sensitivity to wind farm development is deemed to be Very High.</p>
Visibility of the Proposed Project within the LCT	<p>Patches of full and partial theoretical visibility exist within 10km of the proposed turbines of this LCT, with the pockets of full theoretical visibility limited to the northern extent of this LCT. Beyond 10km, theoretical visibility is further limited by the landscape's undulating topographical features. From the most sensitive areas of this LCT (the coastline and mountains), the views towards the proposed turbines will be long distance views whereby the proposed turbines will be viewed as small background features in the distant background, e.g. VP9.</p> <p>Viewpoints 1, 2, 4, 8, 9, 15, 17, and 18 are located within this LCT.</p>
Cumulative Context	<p>One turbine of the existing Ballybane Wind Farm, located 12km from the nearest proposed turbine (T14), is situated within LCT 4, while another turbine is located on the border between LCT 4 and LCT 9.</p>
Cumulative Landscape Effects	<p>As shown by the Cumulative Comparative ZTV, the vast majority of the area within this LCT, located within the LCA Study Area, has visibility of both the cumulative and proposed turbines. A large area of cumulative turbines only is visible at 15km from the nearest proposed turbine, while a section of proposed turbines only is visible within 5 km of the proposed turbines.</p>
Magnitude of Change <i>(Definition – from Section 1.5.2.2 of Appendix 13-1)</i>	<p>Magnitude = Slight.</p> <p>Rationale: The Proposed Wind Farm will not materially alter the physical fabric of this LCT. In terms of changes to the landscape character of this LCT, the greatest effects will occur within a small area at the easternmost extent of the LCT (an LCT with a total area covering approx. 2,339.13 km²), where it borders LCT 15a. Effects on the character of the wider landscape within the LCT is restricted due to visual screening from surrounding landforms and ridgelines, and visibility only occurs from very elevated vantage points from more distant locations within the LCT.</p> <p>For the definition of this rating, refer to Section 1.7.4 “Magnitude of Landscape Change” in <i>Appendix 13-1: LVIA Methodology</i>.</p>
Significance of Effect	<p>Very High × Slight = Moderate = Significant (EPA, 2022) <i>“An effect, which by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.”</i></p> <p>Refer to Section 1.7.5 ‘Landscape Effects Matrix’ in <i>Appendix 13-1: LVIA Methodology</i>.</p>
Mitigation Factors	<p>› The Proposed Wind Farm is not located within this LCT, and therefore, will not alter the physical fabric of the landscape;</p>

LCT 4 – Rugged Ridge Peninsulas (Castletownbere-Bantry-Schull) (HVL)	
	<ul style="list-style-type: none"> › The key sensitivities of this LCT, including the rocky peninsulas and low bays (see Key Characteristics), have little to no theoretical visibility within the LCA Study Area and are 10-15km away from the proposed turbines. Therefore, where visibility may occur, the turbines will appear as small elements in the distant background. › Greatest effects on landscape character will occur at the very periphery of this LCT east of Bantry Bay, an area where the landscape transitions to marginal uplands of lower sensitivity and connects with LCT 15a. › The proposed turbines will not significantly impact the key characteristics, qualities and sensitivities of this LCT which are the rugged coastline, and dramatic mountainous landscape. › As reported in the Chapter, the proposed turbines are strategically sited on elevated ridgelines and do not obscure views of this LCT from locations to the east such as designated scenic routes within neighbouring LCT15a.
Residual Landscape Effect (incl. mitigating factors)	<p>Moderate (EPA, 2022) <i>“An effect that alters the character of the environment in a manner consistent with existing and emerging baseline trends”.</i></p>

LCT 12b – Rolling Marginal and Forested Middleground (South)	
Distance from site to Nearest/Furthest Area of LCT	This LCT is located 3.8km east from the nearest proposed turbine (T1). The proposed Grid Connection runs through this LCT.
LCT Key Characteristics <i>(Cork County Draft Landscape Strategy 2007)</i>	<ul style="list-style-type: none"> › <i>“This landscape type is situated north of Dunmanway. This is a middleground landscape comprising rolling topography with rugged rocky ridges and knolls of old red sandstone spread across shallow river basins formed by low hills. To the north, south and west it extends to higher ridges that form part of the adjoining Ridged, Peaked and Forested Upland landscape character type.</i> › <i>The river basins include the upper reaches of the River Bandon and Sullane River (12a). While typically the hills forming these two basins are gently sloped, they become somewhat steeper at lower levels. Soils include peaty podzols and a thin layer of blanket peat on higher ground which supports a patchy moorland vegetation of semi-natural grassland and heather and also swaths of bracken on slightly more fertile areas. A mosaic of small irregularly shaped pasture fields are scattered among the scrub on lower ground indicating pockets of relatively high fertility between rocky outcrops. The landscape is mottled in terms of both colour and texture due to the diverse landcover, involving a mix of scrub and cultivated patches. On wetter ground and along streams at lower altitudes willow is more prevalent while rush is common in fields of marginal agricultural quality. Broad swaths of coniferous plantations skirt the hills mostly at lower altitudes but also ascend to hilltops.</i> › <i>Farmsteads and houses are sparsely located on lower ground. Farm related buildings such as sheds are generally small and limited in extent. Roads are also limited in width and wind through the rugged terrain. Village clusters are small and scattered, and include Shanlaragh and Togher.</i>

LCT 12b – Rolling Marginal and Forested Middleground (South)	
	<p>› <i>There is a strong presence of the untamed and naturalistic throughout this landscape but this is held in balance by the small pockets of farmland with its relatively ordered field pattern. Spatial flow or dynamic is one of restless undulation. It is a moderately open landscape, providing views between hedgerows across the river valley. However, spatial containment is provided to the north, south and west by the relatively high ridges forming part of the adjoining landscape character types.”</i></p>
Landscape Sensitivity to Wind Farm Development	The CCDP has categorised the landscape value and landscape sensitivity of this LCT to be Medium. The CCDP also designates this LCT to be of Local Landscape Importance. In consideration of the above noted classifications and designations, sensitivity to wind farm development is deemed to be Medium .
Visibility of the Proposed Project within the LCT	Large patches of partial theoretical visibility within the entirety of this LCT with pockets of no theoretical visibility. Where visibility does occur, views towards the proposed turbines from this LCT will be long distance views whereby the proposed turbines will be viewed as small background features in the distant landscape.
Cumulative Context	The turbines of the existing Shehy More and Carrigarierk Wind Farm are located within this LCT.
Cumulative Landscape Effects	As shown by the Cumulative Comparative ZTV, the vast majority of the area within this LCT, has stretches of both cumulative theoretical visibility as well as proposed turbines only theoretical visibility.
Magnitude of Change <i>(Definition – from Section 1.5.2.2 of Appendix 13-1)</i>	<p>Magnitude = Negligible.</p> <p>Rationale: The key landscape characteristics of LCT-12b are not affected by any views of the proposed turbines, and at this distance, where views may occur, the turbines will be viewed as smaller elements in the background of the view.</p> <p>For the definition of this rating, refer to Section 1.7.4 ‘Magnitude of Landscape Change’ in <i>Appendix 13-1: LVIA Methodology</i>.</p>
Significance of Effect	<p>Medium × Negligible = Minor/Negligible = Not Significant (EPA, 2022)</p> <p><i>“An effect which causes noticeable changes in the character of the environment but without significant consequences”.</i></p> <p>Refer to Section 1.7.5 ‘Landscape Effects Matrix’ in <i>Appendix 13-1: LVIA Methodology</i>.</p>
Mitigation Factors	<p>› The Proposed Grid Connection is entirely underground and thus will not affect key landscape character characteristics or have long-term effects;</p> <p>› Where theoretical visibility exists within this LCT, it is only partial. No location within this LCT offers full theoretical visibility of the proposed turbines. Consequently, the visibility of the turbines will be limited from within this LCT.</p>

LCT 12b – Rolling Marginal and Forested Middleground (South)	
Residual Landscape Effect (incl. mitigating factors)	<p>Imperceptible (EPA, 2022) <i>“An effect capable of measurement but without significant consequences”.</i></p>
LCT 16a – Glaciated and Forested Cradle Valley (Gougane Barra) (HVL)	
Distance from site to Nearest/Furthest Area of LCT	At its closest point, this LCT is located approximately 6km north-west from the nearest proposed turbine (T4).
LCT Key Characteristics <i>(Cork County Draft Landscape Strategy 2007)</i>	<ul style="list-style-type: none"> › <i>“This is a landscape formed by intensive glacial erosion, leaving armchair-like forms gouged out of the mountain side. Gougane Barra provides an excellent example of these. The mountain sides are steeply scarped, falling to a flat but limited valley floor which typically accommodates a small lake and/or river. In the case of Gougane Barra, the river in question is the Lee, which rises here meandering its way to the sea at Cork Harbour in the east.</i> › <i>At lower levels scrub typically comprises gorse as well as stunted broadleaf trees and shrubs. Rush and willow are quite common on lower wetter areas, especially in small patches of previously improved land and along water courses. Coniferous plantations occupy a significant portion of these valleys, introducing a patchwork landcover. In certain instances, small groups of conifers are strung out as they ascend to the ridge tops.</i> › <i>Buildings and other structures are few and far between in this landscape type. Gougane Barra is the most noteworthy exception, where the historical remains of the stone buildings used by the seventh century hermit and monk, St. Finnbar, remain alongside a nineteenth century stone oratory as well as contemporary tourist facilities.</i> › <i>Notwithstanding the coniferous plantations, these landscapes are distinctly remote with a strong sense of the naturalistic. The relatively tight containment of valleys and passes (such as the Pass of Keimaneigh) by lofty ridges generates a spatial flow up their serrated slopes to their peaks and beyond to the skies. This vertical dynamic is complemented by a horizontal spatial release from the armchair containment of the valley down-slope, following the course of the river and revealing something of the geological history involving glacial action of bygone eras which had such a formative influence on these landscapes.”</i>
Landscape Sensitivity to Wind Farm Development	The CCDP has categorised the landscape value, and the landscape sensitivity of this LCT to be High. The CCDP has also assigned this landscape to be of National Landscape Importance. As noted in <i>Section 13.4.1.1.3</i> of Chapter 13, given the sensitivity designations for this LCT, this LCT is designated as a High Value Landscape (HVL) in the CCDP. In consideration of the above noted classifications and designations, sensitivity to wind farm development is deemed to be High .
Visibility of the Proposed Project within the LCT	Primarily no theoretical visibility within the entirety of this LCT, with small pockets of partial theoretical visibility. A patch of full theoretical visibility is constrained to the western extent of this LCT.
Cumulative Context	There are no other windfarms located within this LCT.

LCT 16a – Glaciated and Forested Cradle Valley (Gouganne Barra) (HVL)	
Cumulative Landscape Effects	<p>While there are no other wind farms located within this LCT, the Cumulative Comparative ZTV indicates that this LCT has theoretical visibility of other cumulative turbines from adjacent LCTs. Pockets within of both the proposed and cumulative turbine theoretical visibility also exists within this LCT. As such, some cumulative effects will occur from the proposed turbines, however, this effect is confined to a relatively small portion of the LCT, particularly when compared to the broader areas already characterised by cumulative turbine visibility.</p> <p>Overall, no Significant cumulative landscape effects are deemed to occur. Cumulative effects that do arise are incorporated into the magnitude of change below.</p>
Magnitude of Change <i>(Definition – from Section 1.5.2.2 of Appendix 13-1)</i>	<p>Magnitude = Slight.</p> <p>Rationale: The Proposed Wind Farm does not materially alter the physical fabric of this LCT. In terms of visibility, full theoretical visibility constitutes to only a very limited geographical extent of the entirety LCT. Additionally, views within this LCT will be largely visually screened by mature vegetation along local roads and walkways, making full views of the proposed turbines intermittently obscured.</p> <p>For the definition of this rating, refer to Section 1.7.4 “Magnitude of Landscape Change” in <i>Appendix 13-1: LVIA Methodology</i>.</p>
Significance of Effect	<p>High × Slight = Moderate/Minor = Moderate (EPA, 2022)</p> <p><i>“An effect that alters the character of the environment in a manner consistent with existing and emerging baseline trends”.</i></p> <p>Refer to Section 1.7.5 ‘Landscape Effects Matrix’ in <i>Appendix 13-1: LVIA Methodology</i>.</p>
Mitigation Factors	<ul style="list-style-type: none"> › The Proposed Project does not alter the physical fabric of the landscape within this LCT; › The key sensitivities of this LCT (see Key Characteristics above), including the Gougane Barra (which is addressed in Section 13.7.3.1.3 of Chapter 13), and its walking routes have no theoretical visibility of the proposed turbines. Therefore, there will be no effects on the key landscape and visual sensitivities and characteristics of this LCT. › Full theoretical visibility is confined to the western extent of this LCT, within the foothills of the Knockboy Mountain Range. Where visibility does occur, this is in remote mountainous area, with no known waymarked walking trails, and where the turbines will be seen as small elements in the distant background;
Residual Landscape Effect (incl. mitigating factors)	<p>Slight (EPA, 2022)</p> <p><i>“An effect which causes noticeable changes in the character of the environment without affecting its sensitivities”.</i></p>