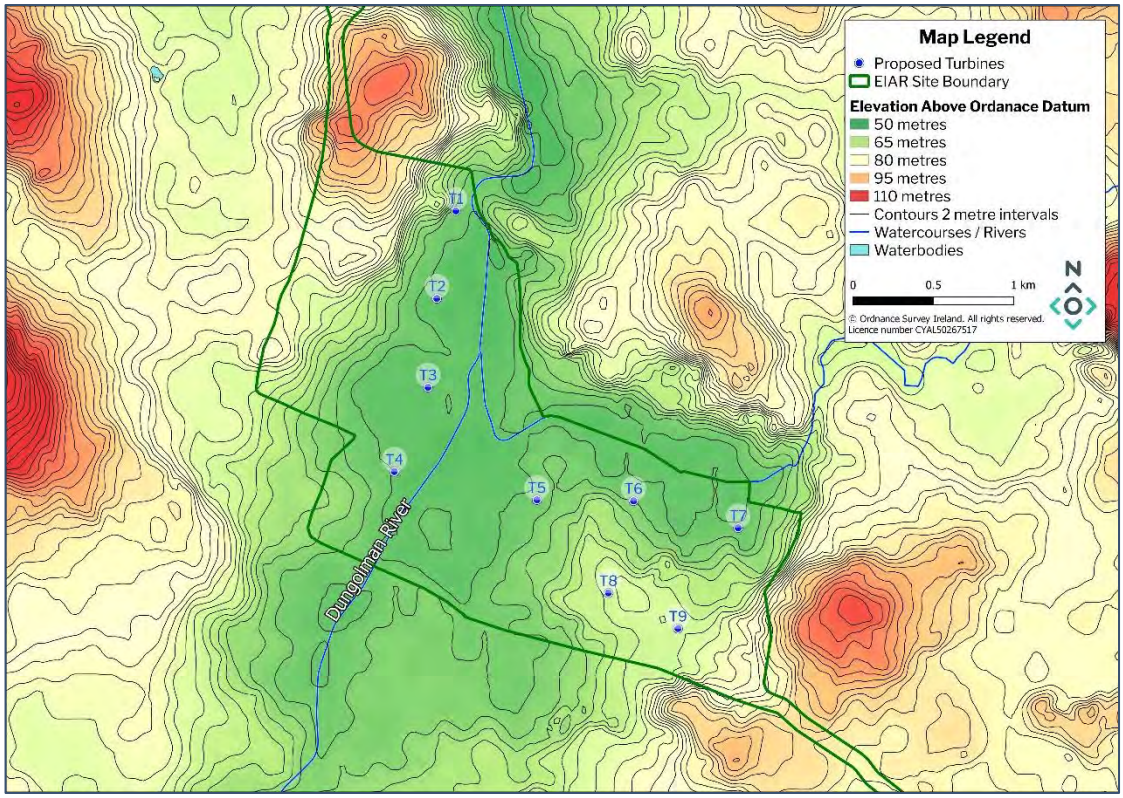


Figure 12-11 Topography of the landscape of the Wind Farm Site

The landscape surrounding the Wind Farm Site comprises irregular, undulating topography, enclosing the low-lying area where the proposed turbines are sited. As shown in Figure 12-11 above, the 'L-Shaped' arrangement of proposed turbines lie parallel to elevated ridgelines of the river valley, providing screening to the north, east and west. The topographical characteristics of this small river valley reduces the visual exposure of the proposed turbines and enhances the capacity of this landscape to accommodate the Proposed Development.

Plate 12-5 View north-west across a large flat plain of agricultural pasture in the centre of the Wind Farm Site (adjacent to turbine T5); A Ridgeline in the background of the view shows the western side of the river valley and the eastern extent of the EIAR Site Boundary.

The Proposed Development infrastructure is predominantly sited on the flattest, low-lying land within the Wind Farm Site. Most of the proposed turbines are sited at a base elevation < 60 metres AOD (although turbines T8 & T9 are sited at slightly higher elevation, approximately 69m and 70m AOD).

As is identifiable in Figure 12-11 above, the base elevation of the proposed turbines is lower than that of the landform of the surrounding landscape beyond the Wind Farm Site. The siting of the proposed turbines at low elevation relative to the surrounding ridgelines accentuates the effect of screening in the wider LVIA Study Area (See definition of 'disproportionate screening effect' previously in Section 12.3.3.1).

As shown in the map above and in the images below, the terrain to the southeast of the Wind Farm Site is slightly irregular and undulating, and there is some localised topographical variation around T6, T7, T8 and T9.

Plate 12-6 View south-east in the direction of T9 from a location between turbine T6 and T7. The terrain is slightly undulating in this area of the Wind Farm Site, the rise visible in the background of the view exists beyond the south-eastern extent of the EIAR Site Boundary.

Plate 12-7 View to the north-west of the Wind Farm Site from the elevated ground between T6 and T8. The field slopes down north towards the proposed location for T6.

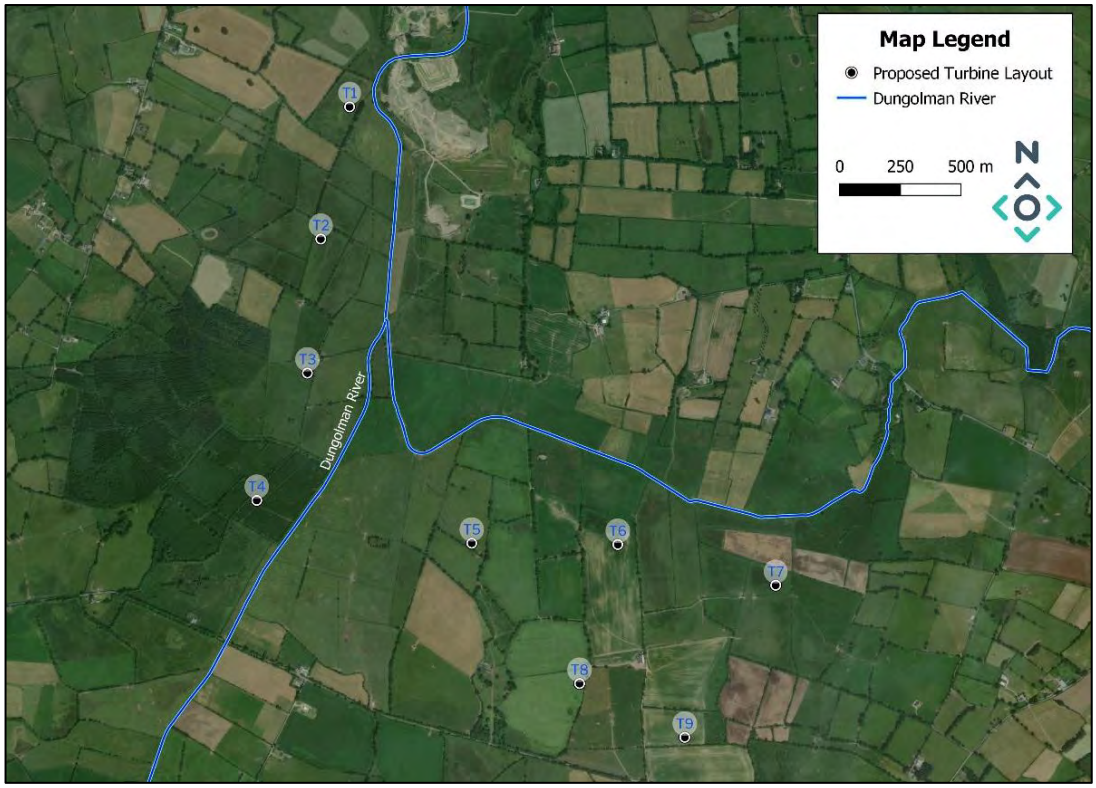


Figure 12-12 Aerial View of the Wind Farm Site with the Dungolman River running through the Wind Farm Site

The Wind Farm Site is located in the South Inny catchment area, north of the Shannon catchment. As reported above, the Wind Farm Site is drained by the Dungolman River which runs through the Wind Farm Site from south to north, between proposed turbines T4 and T5. The flat agricultural fields throughout the Wind Farm Site are drained to this watercourse via man made drainage ditches.

Plate 12-8 Manmade drainage ditch along a field boundary in the flat landscape to the north of the Wind Farm Site

Land Cover and Land Use

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

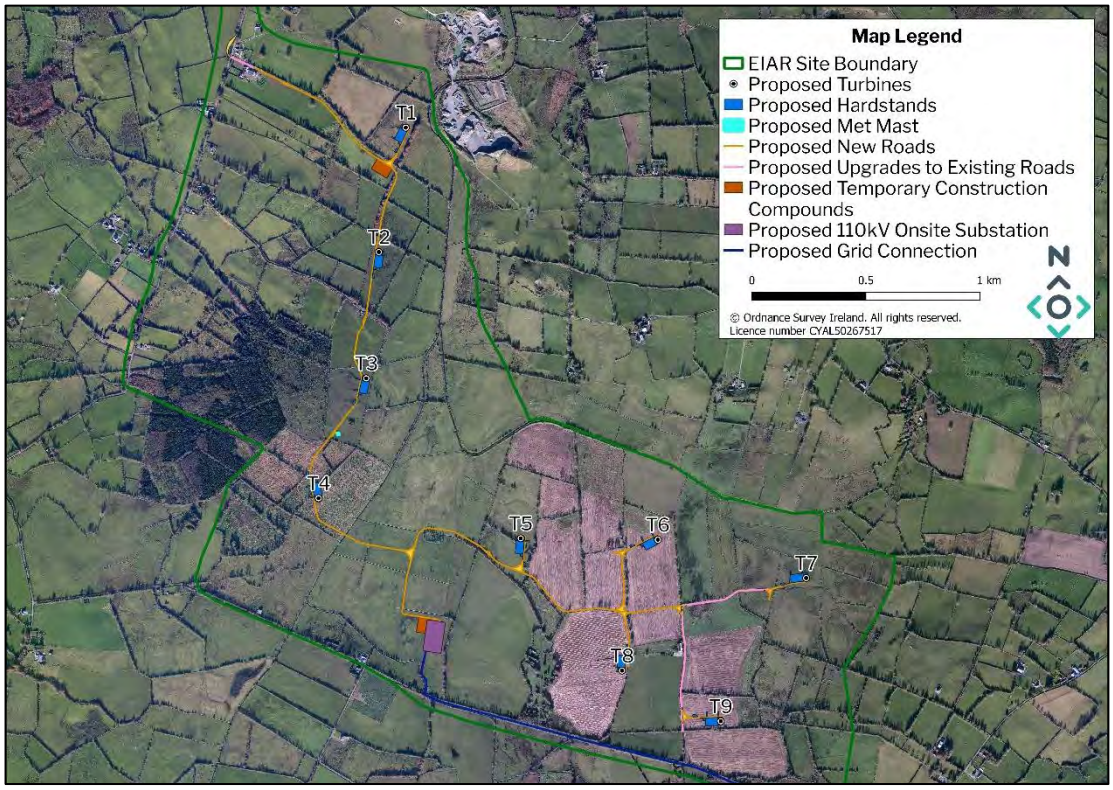


Figure 12-13 An aerial image of the Wind Farm Site and proposed infrastructure footprint

The Wind Farm Site and surrounding area is a settled agricultural landscape comprising fields of grazing pasture delineated by deciduous trees and mature hedgerows. As shown in the aerial image above (Figure 12-13), the Wind Farm Site is defined by a patchwork of agricultural fields and woodland, as well as a commercial forestry plantation located around the site of turbine T4 to the west of the EIAR Site Boundary. The proposed turbines are predominately sited on lands of improved grassland, used for the grazing of livestock (see Plate 12-9). Fields are mostly bounded by clusters of mature broadleaf trees and bushes, as well as stock fencing.

Turbines T1 and T2 are sited in flat fields of marshy grassland to the north of the Wind Farm Site. Hedgerows and trees dominate field boundaries along the drainage ditches delineating field boundaries in the area. A comprehensive description and assessment of the ecology of the Wind Farm Site is included in Chapter 6 - *Biodiversity*.

Plate 12-9 Landcover at the north of the Wind Farm Site: marshy fields bound by drainage canals, shrubs and linear treelines.

Plate 12-10 Open view to the west across a large flat plain of agricultural pasture from a location at the very centre of the Wind Farm Site proximate to the site of Turbine T5. A conifer plantation and the site of turbine T4 is visible in the background of the view.

Plate 12-11 Forestry in the southwest corner of the Wind Farm Site where T4 will be located

Views within the Wind Farm Site

Medium range landscape views are available across the open agricultural fields of the Wind Farm Site, particularly from elevated vantage points at the east of the Wind Farm Site, although they are somewhat limited by the densely vegetated field boundaries. Visibility is restricted where the landscape is enclosed by dense vegetation, such as the coniferous plantation at the Wind Farm Site of T4, as seen in Plate 12-11. Plate 12-12 shows the land cover of the southeast of the Wind Farm Site at the location of T8, as seen below the field is delineated by a row of deciduous trees.

The Wind Farm Site is located in Co. Westmeath LCA 7 - Western Lowlands. Chapter 13 of the WCDP provides a description of LCA 7 in terms of its landform, glacial history and visual containment. This description is highly appropriate and representative of the Wind Farm Site and its landscape setting:

> *"This landscape is generally low-lying but is characterised by a gently undulating topography, particularly around Mount Temple and to the northwest of Moate. Visual containment in the landscape is created by elevated areas and glacial kames, irregular ridges or mounds of gravel deposited by melting glaciers feature at intervals. Low-lying areas, however, are generally contained visually due to high quality, species rich hedges that dominate field boundaries in the area, limiting the extent of views across the landscape." (Westmeath County Development Plan 2021-2027)*

The multiple site visits conducted throughout 2021 and 2022 determined that the undulating topography and vegetation within the landscape causes visual containment. Visual Containment is a common occurrence both within the Wind Farm Site and within the wider lowland landscape setting.

Plate 12-12 View to the north from a location to the southeast of the Wind Farm Site proximate to T8

Man-made features of the Wind Farm Site include agricultural infrastructure and access tracks as well as uninhabited derelict structures such as Umma House and adjacent buildings (As detailed in Section 5.2.1 of Chapter 5 and in Section 13.3.2.10.1 in Chapter 13, Umma House does not constitute a residential dwelling for impact assessment purposes).

Plate 12-13 Umma House an uninhabited derelict house and old out-buildings to the south of the Wind Farm Site.

The primary land use at the Wind Farm Site is agriculture. The grassland fields of the Wind Farm Site are primarily used as grazing pasture for the farming of livestock, as seen in Plate 12-14 below. A

commercial forestry plantation occupies the southwest of the Wind Farm Site as shown in Plate 12-11 above. The agricultural operations and forestry make the Wind Farm Site a rural working landscape.

Plate 12-14 Grazing Pasture for Cattle – A primary land use on the Wind Farm Site.

The landscape immediately surrounding the Wind Farm Site is also a modified working landscape where agriculture is the dominant land use. As well as residential settlement in the area, several other land uses occur in proximity to the EIAR Site Boundary. As shown in Plate 12-15 below, a quarry for mineral extraction exists immediately east of T1. Small scale peat extraction is evident upon Ballynagrenia and Ballinderry Bog to the south of the Wind Farm Site beyond the small settlement of Moyvoughly.

Plate 12-15 View across a field towards a working Quarry located to the east of T1

Several ring forts and monuments exist in the wider landscape and are of local cultural heritage value, national monuments within 5km from the nearest proposed turbine are identified and assessed in Chapter 13 - *Cultural Heritage*. However, it is noted that ringfort monuments are not national monuments in State Care and are commonplace within the working agricultural landscape of Ireland. A comprehensive description and assessment of cultural heritage monuments existent within the EIAR Site Boundary and in the wider landscape is included in Chapter 13– *Cultural Heritage.*

Landscape Character and Setting of the Grid Connection

The proposed onsite substation and temporary construction compound are located on a flat area of land within a field to the south of turbines T4 and T5, in proximity to a local road that runs along the southern border of the Wind Farm Site. Plate 12-16 shows views of the field, from the local road, where the proposed substation and its compound will be located. Visibility of the substation from receptors on this local road is expected to be limited, due to roadside screening, the only views towards the proposed substation will occur from the field entrance shown in Plate 12-16.

Plate 12-16 Location of the proposed substation

Plate 12-17 below shows the view towards the substation from within the Wind Farm Site. The image was taken from the centre of the Wind Farm Site between proposed turbines T4 and T5.

Plate 12-17 View of the proposed substation location from within the Wind Farm Site west of T5

The proposed Grid Connection includes a temporary construction compound, a onsite substation at the Wind Farm Site and its connection via a 110 kV underground electrical cabling route to the existing 110 kV Thornsberry substation near Tullamore, Co. Offaly. The proposed underground electrical cabling route will be installed underground, therefore the greatest effects attributed to this element of the Proposed Development will occur during the construction phase. The majority of underground electrical cabling route works are to be carried out alongside the existing public road network. The proposed underground electrical cabling route was driven during a survey conducted in 2022. As the landscape along the underground electrical cabling route tracks south-east from the Wind Farm Site the landscape is characterised by a rural working landscape. It will pass through Westmeath LCA7, LCA11 and Offaly interim LCA- North-Western Lowland Farmland and Marginal Peatland. The underground electrical cabling route passes through two High Amenity Areas within County Offaly, Durrow Monastic Site and Demesne and Eiscir Riada. As the underground electrical cabling route follows the existing road network, the EIAR Site Boundary along the route does not include any other sensitive landscape receptors or do these roads comprise designated scenic routes or designated scenic views. There are a total of 34 identified watercourse and existing culvert crossings along the underground electrical cabling route, of which 11 no. are EPA/OSI mapped crossings.

As the Grid Connection cabling is underground infrastructure, this will mitigate the potential for significant adverse landscape and visual effects once the infrastructure is installed. The full underground electrical cabling route and its associated construction methodology is detailed within Chapter 4 of this EIAR and an assessment of landscape and visual effects during the construction and operational phase of the Proposed Development is included later in this chapter.

12.4.2.2 Landscape Value and Sensitivity of the Proposed Development Site

Landscape Values were assessed in order to determine the landscape sensitivity of the Proposed Development site and its wider landscape setting and establish the capacity of the immediate landscape in which the Proposed Development will be built, as is prescribed by best practice guidance: *"as part of the baseline description the value of the potentially affected landscape should be established"* (Page 80, GLVIA, 2013). Comprehension of landscape value and its susceptibility to change enables determination of the sensitivity of the landscape at a micro level (the Wind Farm Site) and its capacity to absorb the infrastructure of a wind farm development.

Determination of landscape value considers scenic amenity designations, sensitivity and value designations found in local landscape policy (WCDP), as well as other indications of landscape value attached to undesignated landscapes. Table 12-5 (below) describes various factors that help identify landscape value (Page 84, GLVIA, 2013). These factors and indicators were appraised collectively to determine a landscape value for the Wind Farm Site. The landscape value and susceptibility to change were then considered to form a landscape sensitivity classification of either Low, Moderate, High or Very High for the Proposed Development site.

Table 12-5 Indicators of Landscape Value and Sensitivity

Indicator	Description
Landscape Designations	The Wind Farm Site is not located in a protected landscape within any local landscape policy and no sensitive County Westmeath landscape designations fall within the Wind Farm Site itself. The Wind Farm Site is in Westmeath LCA 7 - Western Lowlands which was historically an LCA designated as having the greatest capacity for Wind Energy Development in Co. Westmeath (See Section 12.4.1.1.3). As noted above in section 12.4.1 there are no designated vulnerable landscape features located within the Wind Farm Site itself. The closest proposed turbine is located 8.8km from the Hill of Uisneach, a protected national monument and High Amenity Area. Several Westmeath protected views are also located within the wider LVIA Study Area.
Landscape Elements Quality/Condition	This refers to the physical state of the landscape and the condition of individual elements. It is a heavily modified working landscape due to the dominant presence of agriculture and forestry and utility of the land for these purposes. The landscape is modified by artificial drainage, access tracks and agricultural infrastructure.
Scenic or Aesthetic Qualities	The Wind Farm Site has some rural aesthetic qualities. Long ranging landscape views are limited, as in general, the Wind Farm Site is a relatively enclosed landscape due to the flat topography, vegetated field boundaries and elevated landforms of the small valley immediately beyond the EIAR Site Boundary. From elevated vantage points within the Wind Farm Site there are some moderately scenic views across the rolling agricultural landscape, although it is noted there are no receptors in these isolated locations within the Wind Farm Site.
Rarity or Conservation Interests	The majority of the Wind Farm Site comprises homogenous grassland used as grazing pasture for livestock, with some commercial forestry. Conservation interests include the mature trees, shrubs and hedgerows along field boundaries which are valuable biodiversity corridors. The riparian zone around the Dungolman River and its tributary also holds some ecological value. A comprehensive assessment of the biodiversity within the EIAR Site Boundary is contained in Chapter 6 – *Biodiversity*
Wildness/Naturalness	The anthropological influence of agriculture, settlements and other surrounding land uses such as the quarry has altered the perceived sense of naturalness or wildness in this landscape.
Recreational Value	The Wind Farm Site comprises privately owned land and is not used for any public recreational activities.
Cultural Meaning / Associations	There are no cultural associations within the EIAR Site Boundary itself. Several ring forts and monuments exist in the wider landscape and are of local cultural heritage value, these are not considered of national or regional value. National monuments within 5km from the nearest proposed turbine are identified and assessed in Chapter 13 - *Cultural Heritage*. The Hill of Uisneach is located 8.8km east of the nearest proposed turbine, it is of local and national heritage importance. The Hill of Uisneach is not visible from the Wind Farm Site and there is no discernible connectivity with

	any heritage monuments within the Wind Farm Site. The Hill has no specific cultural association with the small river valley landscape of the Wind Farm Site itself and there are no records indicating the Hill provides this specific landscape with any unique historic identity. The potential impact of the proposed turbines on the landscape setting of the Hill of Uisneach and visual amenity upon the Hill is comprehensively assessed later in this Chapter.

In consideration of the factors detailed in Table 12-5 above, the landscape value of the Proposed Development site is deemed to be **'Low'** value in a local context. The Wind Farm Site is not the subject of any designated scenic views, it is also located within an LCA with no areas of high amenity and an LCA that historic planning policy had indicated as the most suitable for the development of Wind Energy in Co. Westmeath (See Section 12.4.1.1.3), therefore, the susceptibility of the landscape of the Wind Farm Site to the proposed change is Low. Overall, the sensitivity of this landscape to wind farm development is deemed to be '**Low**'.

12.4.3 Landscape Characterisation in the Guidelines (DoEHLG, 2006) (and with reference to the draft Guidelines (DoHPLG, 2019))

The following section considers the Guidelines (DoEHLG, 2006) and is cognisant of the draft Guidelines (DoHPLG, 2019). These guidelines offer guidance for the siting and design of wind energy developments in various landscape contexts by defining six landscape character types that represent most situations where wind turbines may be proposed. The guidance is intended to be indicative and general and notes that it represents the 'best fit' solutions to likely situations. The six landscape character types include 'Mountain Moorland', 'Hilly and Flat Farmland', 'Flat Peatland', Transitional Marginal Land', 'Urban/industrial' and 'Coastal' landscape character types. The guidelines note that where a wind energy development is located in one landscape character type but is visible from another, it will be necessary to decide which might more strongly influence the approach adopted for the assessment. In consideration of Westmeath County Council landscape designations and site visits conducted by the MKO Landscape and Visual team, the physical characteristics of the Wind Farm Site is best described by 'Hilly and Flat Farmland' landscape character type. Therefore, the best practice siting and design strategies prescribed for Hilly and Flat Farmland (DoEHLG, 2006) were implemented for the Proposed Development.

12.4.3.1.1 *Hilly and Flat Farmland*

The key characteristics of Hilly and Flat Farmland landscape type as stated in the Guidelines (DoEHLG, 2006) are:

- *"Intensively managed farmland, whether flat, undulating or hilly;*
- *A patchwork of fields delineated by hedgerows varying in size;*
- *Farmsteads and houses are scattered throughout, as well as occasional villages and towns;*
- *Roads, and telegraph and power lines and poles are significant components; and*
- *A working and inhabited landscape type."*

The siting and design guidance given for 'Hilly and Flat Farmland' landscape in the DoEHLG (2006) guidelines is set out below:

Location

> *"Location on ridges and plateaux is preferred, not only to maximise exposure, but also to ensure a reasonable distance from dwellings. Sufficient distance should be maintained from farmsteads, houses and centres of population in order to ensure that wind energy developments do not visually dominate them. Elevated locations are also more likely to achieve optimum aesthetic effect. Turbines perceived as being in close proximity to, or overlapping other landscape elements, such as buildings, roads and power or telegraph poles and lines may result in visual clutter and confusion. While in practice this can be tolerated, in highly sensitive landscapes every attempt should be made to avoid it."*

In terms of **location**, site selection was at the forefront of the Proposed Development design. At a project level, siting of proposed turbines at low elevation within this small river valley is highly beneficial in terms of reducing the geographical extent of visibility and visual exposure (and visual effects) from many visual receptors in the wider landscape. One rationale for the recommendation (cited above) to site turbines on elevated ridgelines within this landscape type, is to ensure a reasonable distance from dwellings and population centres, whilst avoiding visual dominance. In this regard, the proposed turbines are set back a reasonable distance from dwellings, adhering to the recommended 4 x tip height set-back distance from the draft Guidelines (DoHPLG, 2019). Also, siting the turbines on a plain of lower lying land relative to residential receptors in the surrounding landscape reduces the

potential for dominant or overbearing effects – as is comprehensively discussed in Section 12.7.3.2.3 of this Chapter.

The guidelines also recommend locational siting on ridgelines in order to reduce overlapping of turbines with landscape elements which may cause visual confusion and clutter. As shown in the photomontages (EIAR Volume 2: Photomontage Booklet) and described throughout the photomontage visual impact assessment tables (See Appendix 12-3), the proposed turbines are viewed as a coherent development within the landscape and limited visual clutter and confusion occurs. As evidenced by the photomontages and accompanying descriptions (Appendix 12-3), an optimum aesthetic effect is achieved through adherence to many of the other recommendations in the guidelines listed below (Spatial Extent; Spacing and Layout).

Spatial Extent

> *"This can be expected to be quite limited in response to the scale of fields and such topographic features as hills and knolls. Sufficient distance from buildings, most likely to be critical at lower elevations, must be established in order to avoid dominance by the wind energy development."*

In terms of **spatial extent**, the turbines are not a dense cluster but an appropriately balanced array across the low-lying farmland. The spatial extent of the nine proposed turbines and infrastructure of the Wind Farm Site is appropriate and effectively absorbed within the L-shaped river valley. In almost all instances, the proposed turbines are sited at lower elevation than residential receptors in the surrounding landscape, reducing the potential for dominance or overbearing visual effects. The Proposed Development achieves the four times tip height set back distance from residential buildings recommended in the Draft Wind Energy guidelines (DoHPLG, 2019).

Spacing

> *"The optimum spacing pattern is likely to be regular, responding to the underlying pattern field pattern. The fields comprising the site might provide the structure for spacing of turbines. However, this may not always be the case and a balance will have to be struck between adequate spacing to achieve operability and a correspondence to field pattern."*

In terms of **spacing**, the turbines of the Proposed Development are appropriately spaced in a staggered linear L-shaped array. In line with the guidance, the regular spacing pattern and slightly staggered arrangement of turbines are sympathetic to the irregular layout of existing field pattern and natural form of the river valley existent within the landscape.

Layout

> *"The optimum layout is linear, and staggered linear on ridges (which are elongated) and hilltops (which are peaked), but a clustered layout would also be appropriate on a hilltop. Where a wind energy development is functionally possible on a flat landscape a grid layout would be aesthetically acceptable."*

In terms of **layout**, the turbines of the Proposed Development are arranged in an 'L-shape', which corresponds neatly with the landform characteristics of the Proposed Development Site and existent field patterns.

Height

> *"Turbines should relate in terms of scale to landscape elements and will therefore tend not to be tall. However, an exception to this would be where they are on a high ridge or hilltop of relatively large scale. The more undulating the topography the greater the acceptability of an uneven profile, provided it does not result in significant visual confusion and conflict."*

In terms of **height**, the development as whole retains a relatively even profile; when viewing the turbines, the nacelles are positioned at a relatively even heights, improving visual coherence when viewed from areas within the wider landscape area.

Cumulative Effect

> *"It is important that wind energy development is never perceived to visually dominate. However, given that these landscapes comprise hedgerows and often hills, and that views across the landscape will likely be intermittent and partially obscured, visibility of two or more wind energy developments is usually acceptable."*

In terms of **cumulative effect,** there are no existing or permitted wind farms in this area of County Westmeath or the LVIA Study Area and no cumulative landscape and visual effects will occur. As shown in the Volume 2 of this EIAR: Photomontage Booklet, there are some limited instances where the proposed turbines may be visible in conjunction with other distant wind farm proposals (2 no. early-stage proposals considered in future baseline scenario – See Section 12.6). In this regard, cumulative effects are likely to be very minor.

12.4.4 Landscape Character of the Wider Landscape Setting

Landscape character refers to the distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape, and how people perceive this. It reflects combinations of geology, landform, soils, vegetation, land use and human settlement, and creates the sense of place found in different areas. The landscape surrounding the Wind Farm Site is a rural agricultural landscape. It is a settled landscape; clusters of residential dwellings are organised in a linear fashion along local and regional roads surrounding the Wind Farm Site. Within 5 km of the Wind Farm Site the only substantial population centre is Ballymore, a small village located approx. 2.7 km to the north-east. To the south within 5 km of the Wind Farm Site there are a number of areas of cutover bog including Ballynagrenia and Ballinderry Bogs. In addition, within 5 km relatively small patches of commercial forestry plantation are interspersed throughout the landscape. The R390 regional road is the main transport route within 5km, connecting the village of Ballymore with larger population centres to the west (Athlone) and east (Mullingar).

Plate 12-18 Cutover bogland to the south of the Wind Farm Site

The slightly peaked and pointed form of a local hill called Knockastia is a notable and prominent feature relative to the low-lying landscape surrounding the Wind Farm Site. Located approximately 4.3km south-east of the nearest proposed turbine, it is visible from within the Wind Farm Site and is a

recognisable landmark in the local area, contrasting with the form of other rolling landform and hills elsewhere in the LVIA Study Area.

Plate 12-19 Landscape view from the south-west of the Wind Farm Site. Peaked elevation of Knockastia visible in the background of the view.

To the north, the landscape remains relatively homogenous with the rural agricultural character of the area within 5km of the Wind Farm Site. The Hill of Forgney is a relatively small topographical feature set within a landscape defined by an ordered field pattern, with extensive areas of grassland fields bordered by mature hedgerows and treelines. In addition, in this direction (north) a large tract of cutover bogland forms the county border between Westmeath and Longford. Of note are the village of Abbeyshrule and the town of Ballymahon, located between 10-15km north of the Wind Farm Site. The Tang River and the Rath River both flow in a northerly direction in this part of the LVIA Study Area, feeding into the Inny River which is located primarily in County Longford between 8-15km from the Wind Farm Site, and ultimately flowing into Lough Ree.

To the west of the Wind Farm Site, the level of elevation generally tapers downwards toward Lough Ree, located approx. 11.2km northwest of the nearest proposed turbine (T1) at its closest point. This Lough is a substantial feature within the landscape in this direction. The N55 national road transects the LVIA Study Area in a northeast to southwest direction, connecting Athlone with Glasson, and Ballymahon further to the north.

To the south a number of prominent hills, including Knockdomy, are located within 10km of the Wind Farm Site. The landcover and land use here is primarily agricultural, with the structure of the landscape defined again by the mature hedgerows and treeline that border the grassland agricultural fields. The town of Moate and Clara, and the M8 motorway located in between them are some defining features of human influence in this part of the Study Area. Again, to the south there are large tracts of cutover bogland interspersed throughout the landscape. In general, throughout the LVIA Study Area, the roadside vegetation and hedgerows that border the agricultural fields, as well as local undulation in the topography provide visual containment, given the flat nature of the landscape at a macro scale.

To the southeast and east of the Wind Farm Site an extensive range of hills can be found, and notable peaks of elevation include Knockastia and the Hill of Uisneach. The elevated landform in this easterly part of the LVIA Study Area provides elevated vantage points, permitting long-ranging views across the flatter midland landscape areas. Despite that this is the most heavily undulating part of the LVIA Study Area, the landcover remains similar to the other areas, characterised by rolling farmland, with the field pattern defined by mature hedgerows and tree lines, which provide a level of visual containment from certain lower areas to the east. In terms of human settlement, the east of the LVIA Study Area is highly rural, with no major population centres present within 15km of the Wind Farm Site. The slightly elevated hills to the east are home to the Hill of Uisneach which is a site of very high cultural heritage importance, and therefore this is considered further below.

Historic Landscape Character

As stated by the WCDP (2022-2027) '*The Hill of Uisneach, a nationally significant archaeological landscape'*. It is located 8.8km east of the Wind Farm Site. The WCDP goes on to state that the Hill of Uisneach *'has a central place, historically, geographically and metaphorically in the annals of Ireland and is internationally considered to be an important cultural landscape.'* The likely impact of the Proposed Development on the landscape of the Hill of Uisneach, its setting and visual amenity upon the Hill is comprehensively addressed later in this chapter (See Section 12.7.3.2.4).

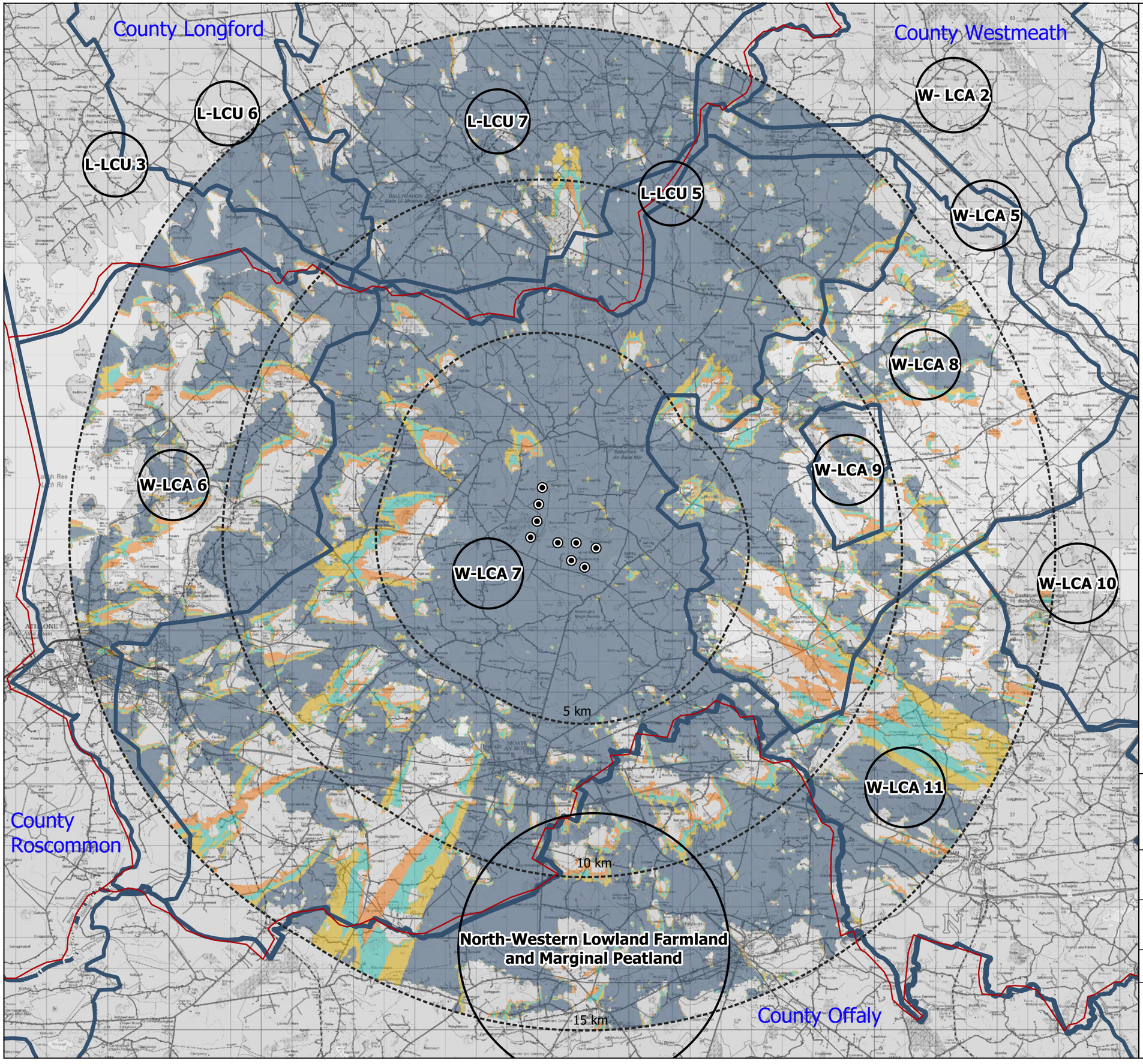
12.4.4.2 Designated Landscape Character Areas (LCAs)

As noted in Section 12.2.1, the LVIA Study Area for assessment of landscape character extends to 15 km from the proposed turbines. In the previous section - *Landscape Designations and Policy Context,* 12 No. designated LCAs were identified within 15 km of the Wind Farm Site, in both County Westmeath and County Longford.

12.4.4.2.1 *LCA Preliminary Assessment*

A map showing all LCAs within 15km and the distribution of theoretical visibility of the proposed turbines occurring in each LCA is shown in Figure 12-14 below.

Each LCA is listed below in Table 12-6, as well as a description of theoretical visibility within each LCA, as indicated by the ZTV in Figure 12-14 below. Several LCAs identified in the LVIA Study Area (15km for landscape character) have very small areas of theoretical visibility indicated by the ZTV map in Figure 12-14. The potential visibility of the proposed turbines was appraised during site surveys (multiple surveys conducted during 2021 and 2022) from all LCAs with very limited or partial theoretical visibility. The ZTV and on-site visibility appraisals determines which LCAs are screened in for full assessment later in this chapter (See also Appendix 12-2), the screening result is noted in Table 12-6.



Map Legend

- Proposed Turbines
- LVIA Study Area (15km for Assessment of Effects on Landscape Character)
- County Borders

Half Blade ZTV

- 1-2 Turbines Theoretically Visible
- 3-4 TurbinesTheoretically Visible
- 5-6 Turbines Theoretically Visible
- 7-9 Turbines Theoretically Visible

Landscape Character Areas

- W-LCA 6 - Lough Ree / Shannon Corridor
- W-LCA 7 - Western Lowlands
- W-LCA 8 - South Central Hills
- W-LCA 9 - Uisneach
- W-LCA 11 - South Westmeath Eskers
- L-LCU 3 - Shannon Basin/Lough Ree
- L-LCU 5 - Inny Basin
- L-LCU 6 - Peatlands
- L-LCU 7 - Open Agricultural
- R-LCA 7 - Mid Lough Ree Pastureland
- R-LCA 8 - Lowe Lough Ree and Athlone Environs
- R-LCA 9 - Cloonown and Shannon Callows
- W-LCA 10 - Lough Ennell and Southeastern Corridor
- W-LCA 2 - Inny River Lowlands
- W-LCA 5 - Royal Canal Corridor
- Offaly LCA North-Western Lowland Farmland and Marginal Peatland

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Drawing No.

Figure 12-14

Drawing Title

LCAs and ZTV Map

Project Title

Umma More Renewable Energy Development

Scale	Project No.	Date	Drawn By	Checked By
1:120,000	201050	03.11.2022	SF	JW

MKO Planning and Environmental Consultants

Table 12-6 LCA Preliminary Assessment.

Map Ref	LCA	Theoretical Visibility (TV) as indicated by ZTV	Actual Visibility	Screened in for Assessment
Up to 5 km				
W-LCA7	Westmeath LCA 7 - Western Lowlands	Predominantly full TV. Limited TV to the south-western portion of the LCA beyond 5 km	Visibility will occur. However, on-site appraisals determined that there would be limited visibility in areas of the LCA beyond 5km from the Wind Farm Site	Yes
W-LCA8	Westmeath LCA 8 - South Central Hills	Full TV in the (north) west of the LCA. Sporadic patches of TV in the centre of the LCA and no or very limited TV to the east.	Visibility is likely to occur on the elevated west facing slopes of these lowland hills in the north-west of the LCA. There is likely to be visibility of turbines from the most elevated peaks. However, actual visibility is likely to be far less than indicated by the ZTV due to localised screening factors.	Yes
5 to 10 km				
W-LCA6	Westmeath LCA 6 - Lough Ree/Shannon Corridor	Intermittent TV, some patches of Full TV and No TV.	Actual visibility is likely to be very limited from within this LCA. Visibility only likely to occur from localised areas of high elevation.	Yes
W-LCA9	Westmeath LCA 9 – Hill of Uisneach	One area of full TV upon the northern, western and southern slope of the Hill of Uisneach. An area of full TV in the south-west of the LCA. The rest of the LCA shows no TV.	Due to access restrictions, no-on site visibility appraisals were undertaken from the Hill of Uisneach. However, as discussed later in this chapter various other tools were utilised to address the likely effects from the Hill and impacts on the LCA. It is likely that actual visibility is less than indicated by the ZTV, although there is likely to be visibility of the proposed turbines from the highest elevations and westerly aspect of the Hill.	Yes

Map Ref	LCA	Theoretical Visibility (TV) as indicated by ZTV	Actual Visibility	Screened in for Assessment
W-LCA11	Westmeath LCA 11 - South Westmeath Eskers	One large area of Full TV north-west of Kilbeggan. Sporadic full TV to the north of the LCA and an area of limited TV in the centre of the LCA.	Actual visibility of the proposed turbines is likely to be very limited within this LCA as it is a flat and enclosed landscape. Visibility is only likely to occur on localised areas of higher elevation.	Yes
L-LCU-3	Longford LCU 3 - Shannon Basin/Lough Ree	Predominantly Full TV	Visibility of the proposed turbines is likely to be limited and far less than the ZTV indicates from areas of this LCA located within the LVIA Study Area for Landscape Character. Visibility is only likely to occur from a few isolated vantage points adjacent to Lough Ree.	Yes
L-LCU5	Longford LCU 5 - Inny Basin	Predominantly Full TV	Actual visibility of the proposed turbines is likely to be very limited and far less than indicated by the ZTV as the landcover is dominated by woodlands. Visibility is only likely to occur on localised areas of higher elevation such as the Hill of Forgney.	Yes
L-LCU6	Longford LCU 6 - Peatlands	Predominantly Full TV	Actual visibility of the proposed turbines is likely to be very limited within this low lying and enclosed midland landscape. Visibility is only likely to occur on localised areas of higher elevation.	Yes
L-LCU7	Longford LCU 7 - Open Agricultural	Predominantly Full TV	Actual visibility of the proposed turbines is likely to be very limited due to the woodlands punctuated throughout the landscape.	Yes
Offaly	Interim LCA – North-Western Lowland Farmland	Mixed theoretical visibility	Actual visibility of the proposed turbines is likely to be very limited within	Yes

Map Ref	LCA	Theoretical Visibility (TV) as indicated by ZTV	Actual Visibility	Screened in for Assessment
	and Marginal Peatland		this low lying and enclosed midland landscape Visibility is only likely to occur on localised areas of higher elevation.	
10 to 15 km				
W-LCA2	Westmeath LCA 2 – Inny River Lowlands	Predominantly Full TV	Visibility of the proposed turbines is not likely from the very small area of this LCA located within the LVIA Study Area for Landscape character	No
W-LCA5	Westmeath LCA 5 – Royal Canal Corridor	Predominantly full TV in areas of the LCA located within the LVIA Study Area for landscape character.	Due to the low lying and flat nature of this LCA, actual visibility of the proposed turbines is not likely. As determined by visibility appraisals and photomontages.	No
W-LCA10	Westmeath LCA 10 – Lough Ennell and South Eastern Corridor	Predominantly No TV. Very small patched of limited TV.	No visibility of the proposed turbines from areas of this LCA located within the LVIA Study Area for Landscape character	No

LCAs in Table 12-7 below are screened out from further assessment in this LVIA as views towards the turbines were either entirely screened or substantially screened. In some cases, distance to the proposed turbines and the limited footprint of the LCA located within the LVIA Study Area (15 km for assessments of landscape character) precluded LCAs from being assessed further in this LVIA.

*Table 12-7 LCAs **Screened Out** from further assessment*

Landscape Character Area with no Significant Visibility found on Site, Screened out from further Assessment
Westmeath LCA 2 – Inny River Lowlands
Westmeath LCA 5 – Royal Canal Corridor
Westmeath LCA 10 – Lough Ennell and South Eastern Corridor

Following the pre-assessment exercise, the LCAs shown in Table 12-8 below have been selected for assessment. As some of the proposed turbines are likely to be visible from some areas within these LCAs, potential landscape effects may arise as a result of the Proposed Development.

*Table 12-8 LCAs **Screened In** for full assessment.*

Landscape Character Areas with likely visibility of the proposed turbines, screened in for further assessment
Westmeath LCA 6 - Lough Ree/Shannon Corridor
Westmeath LCA 7 - Western Lowlands
Westmeath LCA 8 - South Central Hills
Westmeath LCA 9 – Hill of Uisneach
Westmeath LCA 11 - South Westmeath Eskers
Longford LCU 3 - Shannon Basin/Lough Ree
Longford LCU 5 - Inny Basin
Longford LCU 6 - Peatlands
Longford LCU 7 - Open Agricultural
Offaly Interim LCA – North-Western Lowland Farmland and Marginal Peatland

A detailed description of the ten LCAs screened in for assessment (Table 12-8) and the likely effects on landscape character as a result of the Proposed Development are presented in the Landscape Character Assessment Tables that form Appendix 12-2. A summary of landscape effects on these LCAs are reported in Section 12.7.3 of this chapter - *Operational Phase Effects.*

12.5 Visual Baseline

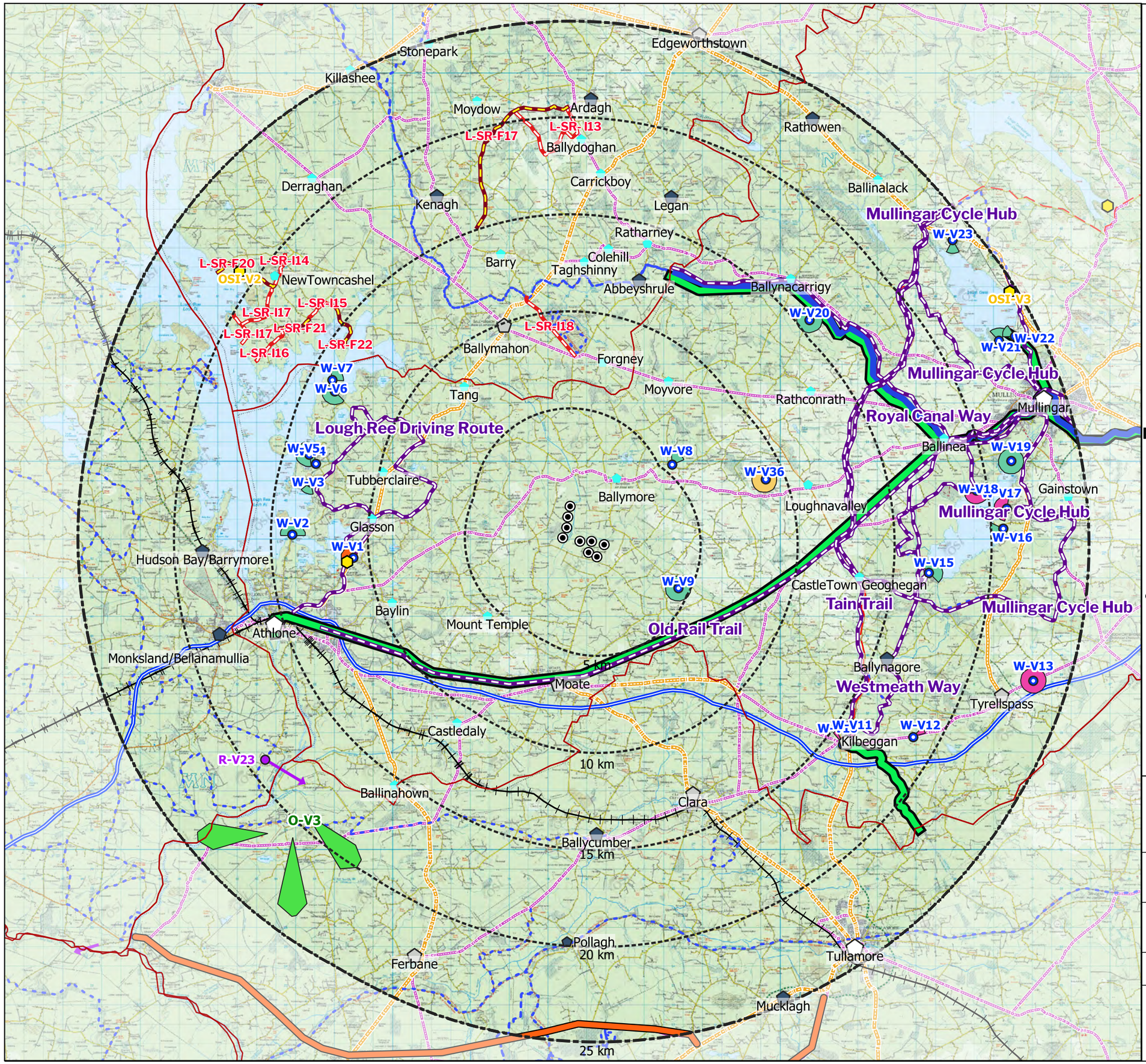
12.5.1 Visual Receptors

The main purpose of establishing the visual baseline is to identify the key visual receptors that should be considered for viewpoint selection, viewpoints are locations from which visual effects are assessed and illustrated using photomontages (See Appendix 12-1 – *LVIA Methodology*). To this end, the following visual receptors have been identified within the LVIA Study Area and are listed in order of priority:

- Designated Scenic Routes and Views
- Viewing Areas (e.g., marked on OSi Maps)
- Settlements
- Recreational Routes (Waymarked Walking Routes; Cycle Routes; Scenic Drives; Tourist Routes)
- Recreational and Tourist Destinations
- Transport Routes

These visual receptors are identified in the visual baseline map (Figure 12-15 below) and are listed in tables in the following sections along with theoretical visibility at those locations indicated by the ZTV map in Figure 12-16, seen below. During site visits conducted during 2021 and 2022, the likely visibility of the proposed turbines was appraised from receptors where the ZTV has indicated theoretical visibility. Visual receptors are scoped out from further assessment when there is either no theoretical visibility of the proposed turbines or where on-site appraisal determined visibility of the proposed turbines to be very unlikely or very limited.

Considering the visual containment of the landscape surrounding the Wind Farm Site and limited visibility beyond 5km, selection of photomontage viewpoints considered the potential visual impacts on local residential receptors. Selection of photomontages representative of residential visual amenity is discussed in Section 12.5.3.



Map Legend

- Proposed Turbines
- LVIA Study Area
- County Borders

Settlement Hierarchy

(Standardised)

- County Hub Town
- Town
- Village
- Small Village of Local Importance

Visual Receptors

- Co. Westmeath Designated Scenic Routes

Co. Westmeath Protected Views

- Hill of Uisneach Panorama
- Regional
- County
- Local

Westmeath Green Infrastructure Network

- Blueway
- Greenway

Co. Longford Designated Views and Scenic Routes

- Full Views
- Intermittent Views
- Co. Offaly Protected Views
- Co. Roscommon Protected Views
- OSi Viewing Points
- Co. Offaly Key Amenity Routes
- Way Marked Walking Trails

Transport Routes

- M6 Motorway
- National Roads
- Regional Roads
- Rail Network

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Drawing No.

Figure 12-15

Drawing Title

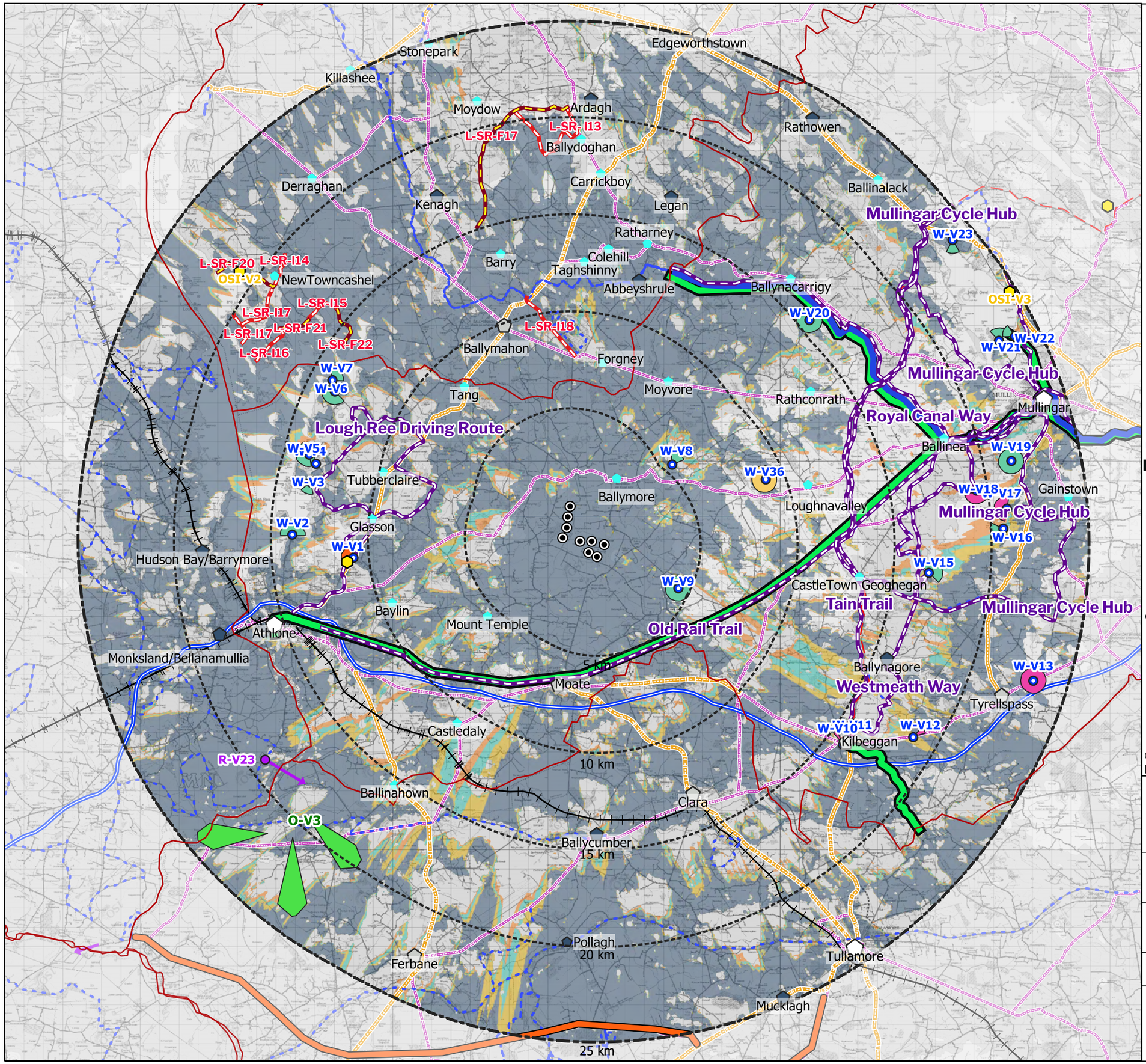
Visual Baseline

Project Title

Umma More Renewable Energy Development

Scale	Project	Date	Drawn By	Checked By
1:190,000	201050	03.11.2022	SF	JW

MKO Planning and Environmental Consultants



Map Legend

- Proposed Turbines
- LVIA Study Area
- County Borders

Half Blade ZTV

- 1-2 Turbines Theoretically Visible
- 3-4 TurbinesTheoretically Visible
- 5-6 Turbines Theoretically Visible
- 7-9 Turbines Theoretically Visible

Settlement Hierarchy

(Standardised)

- County Hub Town
- Town
- Village
- Small Village of Local Importance

Visual Receptors

- Co. Westmeath Designated Scenic Routes

Co. Westmeath Protected Views

- Hill of Uisneach Panorama
- Regional
- County
- Local

Westmeath Green Infrastructure Network

- Blueway
- Greenway

Co. Longford Designated Views and Scenic Routes

- Full Views
- Intermittent Views
- Co. Offaly Protected Views
- Co. Roscommon Protected Views
- OSi Viewing Points
- Co. Offaly Key Amenity Routes
- Way Marked Walking Trails

Transport Routes

- M6 Motorway
- National Roads
- Regional Roads
- Rail Network

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Drawing No.

Figure 12-16

Drawing Title

Visual Baseline and ZTV

Project Title

Umma More Renewable Energy Development

Scale	Project	Date	Drawn By	Checked By
1:190,000	201050	03.11.2022	SF	JW

MKO Planning and Environmental Consultants

12.5.1.1 Designated Scenic Routes and Views

31 no. designated scenic routes and views were previously identified and described in Table 12-2 and Table 12-4 in Section 12.4.1 of this chapter – *Landscape Designations and Policy Context*. These scenic amenity designations are mapped in Figure 12-6 (seen previously) and also the visual receptor map shown above – Figure 12-15. Table 12-9 (below) lists the scenic designations located in the LVIA Study Area as well as any descriptions relating to the direction or object of the view detailed in the relevant county development plan. If detailed in the development plan, the direction of the view and range (field of view) is reported in Table 12-9 and whether it is likely that the designated scenic amenity is directed towards the Wind Farm Site. Table 12-9 also notes the theoretical visibility of the proposed turbines from these designated locations is as indicated by the ZTV Figure 12-16.

Based upon these initial visibility assessments, scenic amenity designations are either screened in or out for full assessment in this LVIA.

Table 12-9 Designated Scenic Amenity – Preliminary Assessment

Map Ref.	Scenic Route/View Description	Direction and Range of View	Directed to Turbines?	Theoretical Visibility	Screened in for Assessment
Up to 5 km					
W-V9	Panoramic views from Knockastia Hill- View of local significance	All Directions – 360 Field of View	Yes, panoramic views	Full	Yes
5 to 10 km					
W-V8	Panoramic views over countryside to the north off Ballymore-Mullingar Road from Local Road L5342 – View of local significance	North, panoramic	Yes	Partial	Yes
W-V36	Panoramic view of surrounding countryside from atop the Hill of Uisneach – View of national significance	All Directions – 360 Field of View	Yes, panoramic views	Full	Yes
L-SR-I18	Forgney, Newcastle, Clooncallow, Cloonkeen (Rathcline By).	Indication Unclear	Potentially	Yes	Yes
Lough Ree Driving Route	Designated Scenic Drive along Lough Ree County Westmeath	Indication Unclear	Potentially	Mixed	Yes
Old Rail Trail	Designated greenway scenic route from Athlone northeast to Mullingar	Indication Unclear	Potentially	Mixed	Yes

Map Ref.	Scenic Route/View Description	Direction and Range of View	Directed to Turbines?	Theoretical Visibility	Screened in for Assessment
10 to 15 km					
W-V1	View over Lough Ree from parking/picnic area on the N55 Road between Ballykeeran and Glasson. – View of regional significance	W/NW	No	Full	No
W-V2	Views of Lough Ree from Coosan waterfront from pier, slipway and forest walk trail. -View of local significance	N 180 degrees	No	Full	No
W-V3	Views of Lough Ree from Carnakill pier and Portlick Forest Walk from pier and forest walking trail. – View of local significance	SW	No	None	No
W-V4	View of Lough Ree from Portlick Scout Campsite from short stretch of road along lake shore – View of local significance	W/NW 90 degrees	No	None	No
W-V5	View of Lough Ree from small pier at lake shore – View of local significance	W	No	None	No
W-V6	View of Lough Ree and reed beds from road and pier from local road and pier. – View of local significance	SW	No	Partial	No
W-V7	View of Lough Ree from Lough Ree House marina from picnic area and marina. – View of local significance	N	No	Full	No
L-SR-F22	Drumnee, Saints Island	Indication Unclear	Potentially	Full	Yes
Mullingar Cycle Hub	Designated circular cycle route from Mullingar through Loughnavalley and Rathconrath	Indication Unclear	Unlikely	Partial to None	No

Map Ref.	Scenic Route/View Description	Direction and Range of View	Directed to Turbines?	Theoretical Visibility	Screened in for Assessment
Táin Trail	Designated tourist driving/cycling/walking route with views of Lough Lene and Lough Derravaragh	Indication Unclear	Unlikely	Partial to None	No
Westmeath Way	Designated walking trail from Kilbeggan northeast to Mullingar past Lough Ennell.	Indication Unclear	Unlikely	None	No
15 o 20 km					
W-V10	View of the south-east face of Kilbeggan Distillery from bridge over the River Brosna on Regional roadR-446. – View of county significance	Northwest	No	Full	No
W-V11	View of Old Mill outside Kilbeggan from the intersection of the Local Road L-524 with the Regional Road R-389. – View of local significance	South	No	None	No
W-V12	View of Long Hill Esker from south of the R-446 Regional Road. – View of county significance	East	No	Partial	No
W-V15	View of Lough Ennell from Lilliput Pitch and Putt from pier at lake shore. – View of local significance	Northeast	No	Partial	No
W-V18	View of Lough Ennell from carpark from the parking area by lake shore. – View of county significance	South	No	Partial	No
W-V20	Panoramic view from Hill of Laragh from the local road L-5905 as it curves around the highpoint at Laragy Hill.	360	Yes	Full/Partial	Yes

Map Ref.	Scenic Route/View Description	Direction and Range of View	Directed to Turbines?	Theoretical Visibility	Screened in for Assessment
	– View of local significance				
O-V3	Clonmacnoise and River Shannon, Eskers, Mongan Bog and Finlough.	Multiple Directions	No	Full	No
L-SR-I13	Cornadowagh, Ballyrevagh, Carrowbeg.	Indication Unclear	Unlikely	Full	Yes
L-SR-I14	Cornadowagh, Ballyrevagh, Carrowbeg.	Indication Unclear	Unlikely	Full	Yes
L-SR-I15	Drumnee, Claras, Corrool (Fox).	Indication Unclear	Unlikely	Full	Yes
L-SR-I16	Portanure, Lismagawley, Pollagh.	Indication Unclear	Unlikely	Full	Yes
L-SR-I17	Portanure, Lismagawley, Pollagh.	Indication Unclear	Unlikely	Mixed	No
L-SR-F17	Druming, Cartrongarrow, Lisduff (Montgomery), Bawn Mountain, Barroe, Castlerea Mountain, Castlerea, Keeloge, Commock, Curraghmore, Abbeyderg, Loughan, Glenmore (Moydow By), Lislea(Moydow By), Cartronbrack.	Indication Unclear	Unlikely	Mixed	No
L-SR-F20	Cashel, Loughfarm, Elfeet (Adamson), Leab, Carrowbeg.	Indication Unclear	Unlikely	None	No
L-SR-F21	Tipper (Rathcline By)	Indication Unclear	Unlikely	Full	Yes
20 to 25km					
W-V13	Panoramic views from Garrane Hill on the Regional Road R-446. This is a panoramic view of the surrounding landscape from the highest point on the	Panoramic	Yes	Full	Yes

Map Ref.	Scenic Route/View Description	Direction and Range of View	Directed to Turbines?	Theoretical Visibility	Screened in for Assessment
	R446 road when looking down the roads to the NE and SW.				
W-V16	Views of Lough Ennell along coast beside Lough Ennell Caravan Park From picnic walkway by lake shore. The focus of this view is Lough Ennell to the west. The lough's wooded shores form the background and are an important feature of the view.	Southwest over Lough Ennel	Yes	Partial	Yes
W-V17	View of Lough Ennell from Belvedere House gardens from picnic walkway by lake shore. The focus of this view is Lough Ennell to the north. The lough's wooded shores form the background and are an important feature of the view.	West over Lough Ennel	Yes	Partial	Yes
W-V19	Scenic route through forest and woodlands from Butler's Bridge/Kilpatrick Bridge, Local Road L-1137. View from the bridge on the local road L-1137 and end at the shore of Lough Ennell. This is a scenic route through a forest trail. The trail is edged by mature trees and follows a stream which enters Lough Ennell. At the end of the trail (though not surfaced) is a wide clear view of Lough Ennell from the shore. From a scenic trail. This view should be considered to begin at the bridge on the local road L-1137 and	Panoramic	Yes	None	No

Map Ref.	Scenic Route/View Description	Direction and Range of View	Directed to Turbines?	Theoretical Visibility	Screened in for Assessment
	end at the shore of Lough Ennell.				
W-V21	View of Lough Owel by Pitch and Putt from picnic walkway by lake shore. The focus of this view is Lough Owel to the north. The lough's wooded shores form the background and are an important feature of the view.	North over Lough Owel	No	None	No
W-V22	View of Lough Owel from Mullingar Sailing Club from lake shore and parking area. The focus of this view is Lough Owel to the northwest. The lough's wooded shores form the background and are an important feature of the view.	Northwest over Lough Owel	No	None	No
W-V23	View of Lough Owel from Local Road L-5818. The focus of this view are glimpses of Lough Owel set among low hills.	South over Lough Owel	No	Full	No

12.5.1.2 OSI Viewing Areas

Three viewing areas were identified on an Ordnance Survey of Ireland (OSI) map of the LVIA Study Area. This viewpoint is described below in Table 12-10. Although there is full theoretical visibility indicated by the ZTV map, views from these locations are not focussed in the direction of the Wind Farm Site and on-site appraisal determined no visibility likely to occur from these viewpoints, therefore, they were screened out of further assessment.

Table 12-10 OSI Viewing Area in the LVIA Study Area

Map Ref.	Scenic Route/View Description	Direction and Range of View	Directed to Turbines?	Theoretical Visibility	Screened in for Assessment
10 to 15km					
W-V1	View over Lough Ree from parking/picnic area on the N55 Road between Ballykeeran and Glasson.	W/NW	No	Full	No
OSI-V2	View over Lough Ree in Loughfarm along Longford Scenic Route F20	Southwest	No	Full	No
OSI-V3	View over Lough Owel from the east shore along the N4 and Mullingar Cycle Hub	West	Yes	None	No

12.5.1.3 Settlements

In order to identify which settlements within the LVIA Study Area should be considered for viewpoint selection, the settlement strategies and hierarchy set out in the core strategy of the Development Plans of Counties Westmeath, Offaly, Longford and Roscommon were consulted. The settlement hierarchies of the four counties in the LVIA Study Area use differing classifications and naming conventions. MKO have created a standardised settlement hierarchy to enable cross-comparison of these population centres and clarity within the visual baseline mapping and throughout this assessment. Each settlement is given one of the following classifications in consideration of its size, population density and existing designation in the relevant county development plan.

- County Hub Town
- Town
- Village
- Rural Settlement Clusters

Table 12-11 below lists the settlements identified from the respective CDPs within the 25km LVIA Study Area also noting their county status within the settlement strategy and whether there is theoretical visibility indicated by the ZTV.

Table 12-11 Settlements within the LVIA Study Area for Counties Westmeath, Offaly, Longford and Roscommon

Settlement	County Settlement Hierarchy	Standardised Settlement Hierarchy	Theoretical Visibility	Screened In?
Up to 5km				
Ballymore	Rural	Rural Settlement Clusters	Full	Yes
5 to 10 km				
Moate	Self-Sustaining Growth Town	Town	Full to Partial	Yes
Ballymahon	Self Sustaining Town	Town	Full	Yes
Glasson	Rural	Rural Settlement Clusters	None	No
Mount Temple	Rural Node	Rural Settlement Clusters	Full	Yes
Baylin	Rural Node	Rural Settlement Clusters	None	No
Tubberclaire	Rural Node	Rural Settlement Clusters	Full	Yes
Tang	Rural Node	Rural Settlement Clusters	Full	Yes
Forgney	Rural Settlement Cluster	Rural Settlement Clusters	Full	Yes
Moyvore	Rural Node	Rural Settlement Clusters	Full	Yes
10 to 15km				
Clara	Town	Town	Mixed	Yes
Abbeyshrule	Serviced Rural Village	Village	Full	Yes
Ballycumber	Village	Village	Partial to None	No
Castledaly	Rural Node	Rural Settlement Clusters	Partial to None	No
Castletown Geoghegan	Rural	Rural Settlement Clusters	Partial to None	No
Loughnavalley	Rural Node	Rural Settlement Clusters	None	No

Settlement	County Settlement Hierarchy	Standardised Settlement Hierarchy	Theoretical Visibility	Screened In?
Rathconrath	Rural Node	Rural Settlement Clusters	Mixed	No
Barry	Rural Settlement Cluster	Rural Settlement Clusters	Full	Yes
Colehill	Rural Settlement Cluster	Rural Settlement Clusters	Full	Yes
Taghshinny	Rural Settlement Cluster	Rural Settlement Clusters	Full	Yes
Ratharney	Rural Settlement Cluster	Rural Settlement Clusters	Full	Yes
15 to 20km				
Athlone	Regional Growth Centre	County Hub Town	Full	Yes
Kilbeggan	Self-Sustaining Growth Town	Town	Full	Yes
Monksland / Bellanamullia	Key Support Town / Settlement	Village	Mixed	Yes
Hudson Bay / Barrymore	Tertiary Growth Area	Village	Full	Yes
Kenagh	Towns and Villages	Village	None	No
Pollagh	Village	Village	Full	Yes
Ballynagore	Self-Sustaining Rural Consolidation	Village	None	No
Legan	Towns and Villages	Village	None	No
Ballinea	Rural Node	Rural Settlement Clusters	None	No
Ballinahown	Rural Node	Rural Settlement Clusters	None	No
Ballynacarrigy	Rural	Rural Settlement Clusters	Full	Yes
Carrickboy	Rural Settlement Cluster	Rural Settlement Clusters	Mixed	Yes
Ballydoghan	Rural Settlement Cluster	Rural Settlement Clusters	None	No

Settlement	County Settlement Hierarchy	Standardised Settlement Hierarchy	Theoretical Visibility	Screened In?
Newtowncashel	Rural Settlement Cluster	Rural Settlement Clusters	Mixed	Yes
20 to 25km				
Derraghan	Rural Settlement Clusters	Rural Settlement Clusters	None	No
Moydow	Rural Settlement Clusters	Rural Settlement Clusters	None	No
Ardagh	Serviced Rural Villages	Village	Partial to None	No
Killashee	Rural Settlement Clusters	Rural Settlement Clusters	Partial	No
Stonepark	Rural Settlement Clusters	Rural Settlement Clusters	None	No
Edgeworthstown	Self-Sustaining Town	Town	None	No
Rathowen	Self-Sustaining Rural Consolidation	Village	Partial to None	No
Ballinalack	Rural (Serviced)	Rural Settlement Clusters	Full	Yes
Mullingar	Key Towns	County Hub Town	None	No
Gainstown	Rural Node	Rural Settlement Clusters	Full	Yes
Tyrellspass	Towns & Villages	Town	Full	Yes
Tullamore	Key Town	County Hub Town	Partial to None	No
Mucklagh	Village	Village	Partial to None	No
Ferbane	Town	Town	None	No

12.5.1.4 Recreational Routes

Recreational routes are sensitive receptors as people are likely to be using them in a recreational capacity where value is likely to be placed upon views and the scenic amenities of the landscape. The term recreational routes encompass the following:

- Waymarked walking routes (Source – Sport Ireland Designated Trails)
- Cycle routes (Source – Sport Ireland Designated Cycle Routes)
- Scenic drives and tourist routes (e.g., the Wild Atlantic Way)

Routes were identified and located within the LVIA Study Area by examination of OSI maps and online sources such as: Sportireland.ie/outdoors/Irelands-trails; Heritagemaps.ie and Activeme.ie. Many routes exist of differing scale and prominence, only recreational routes of County or National importance were included in this LVIA. The Old Rail Trail, Westmeath Way and Mullingar Cycle Hub were identified as Designated Scenic Routes. They are discussed again below in Table 12-12 as they also identify as recreational routes, all other recreational trails identified in the LVIA Study Area are presented below. The routes are shown on Figure 12-15 and are listed in Table 12-12 below along with theoretical visibility distributed upon each route by ZTV mapping.

Table 12-12 Recreational Routes within the 25km LVIA Study Area for Co. Westmeath, Longford and Offaly

Route Name	Description	Theoretical Visibility	Actual Visibility	Screened In?
5 to 10km				
Mullingar – Athlone – Old Rail Trail Greenway	Designated greenway cycle route and walking trail in County Westmeath from Athlone to Mullingar. Runs south of the proposed turbines.	Mixed	Actual visibility will be substantially less than as indicated by the ZTV. Localised screening from topography and vegetation will screen the proposed turbines from view along the route. There may be areas where views are visible through gaps in vegetation.	Yes
Newcastle Wood – Church walk, Wandering walk, River Inny walk and Access for All	Walking trails surround the perimeter of Centre Parcs within Longford Forrest	Partial to None	Actual visibility will be substantially less than as indicated by the ZTV. Localised screening within the vegetated landscape will screen the proposed turbines from view along the route	No
10 to 15km				
National Famine Way	Walking trail from Strokestown, Roscommon to Dublin Docklands.	Mixed	Actual visibility will be substantially less than as indicated by the ZTV, however there is likely to be some elevated locations	No

Route Name	Description	Theoretical Visibility	Actual Visibility	Screened In?
			with views towards the proposed turbines.	
Royal Canal Greenway	Designated greenway cycle route and walking trail from Maynooth, County Kildare to Cloondara, County Longford.	Partial to None	Unlikely to be any visibility of the proposed turbines.	No
Mullingar Cycle Hub Loop 2	Designated circular cycle route from Mullingar through Loughnavalley and Rathconrath	Partial to None	Unlikely to be any visibility of the proposed turbines.	No
The Pilgrims Road to Clonmacnoise Cycle Route	Cycle route from Ballycumber to Clonmacnoise in county Offaly	Mixed	Actual visibility will be substantially less than as indicated by the ZTV. Localised screening from topography and vegetation will screen the proposed turbines from view along the route. There may be areas where views are visible through gaps in vegetation.	Yes
15 to 20km				
Westmeath Way	Designated walking trail from Kilbeggan northeast to Mullingar past Lough Ennell.	None	Unlikely to be any visibility of the proposed turbines.	No
Clara Esker Forest Loop Walk	Short circular walk south of Clara	Partial to None	Unlikely to be any visibility of the proposed turbines.	No
Clara Esker Ballinough Doorey Loop	Circular walk south of Clara	Partial to None	Visibility very unlikely	No
Clara Bog Boardwalk	1 km looped walk	None	No visibility	No
Rinn Duin Loop Walks	Walking trails on the banks of Lough Ree of local prominence.	Full	Visibility very unlikely due to distance and infrastructure	No
Royal Canal Way	Designated walking trail from Cloondara, Longford to Dublin Docklands.	None	Unlikely to be any visibility of the proposed turbines.	No

Route Name	Description	Theoretical Visibility	Actual Visibility	Screened In?
Geen Heartlands Cycle Route	Designated circular cycle route in Co. Roscommon.	Full	Unlikely to be any visibility of the proposed turbines due to the distance and urban areas between the route and site	No
Offaly Way	Designated linear walking route from Cadamstown to Lemanaghan.	Partial to None	Unlikely to be any visibility of the proposed turbines.	No

12.5.1.5 Transport Routes

National Primary and National Secondary roads as well as train routes were identified within the LVIA Study Area. The visual baseline exercise determined that most visibility of the proposed turbines will occur within 5km of the Wind Farm Site. As there are no National Primary or National Secondary routes within 5 km of the Wind Farm Site, Regional Roads within 5 km were included in the visual baseline exercise. Regional Roads and Local Road transport routes within 5 kilometres of the Wind Farm Site were also assessed as part of the route screening analysis included in Section 12.3.4.

Table 12-13 (below) lists the transport routes and the geographical extent of theoretical visibility upon each section of the identified transport routes as illustrated in the Visual Baseline and ZTV map. On site appraisals determined that in most instances there will be limited visibility from large portions of these routes where the ZTV has indicated full theoretical visibility due to local topography and roadside screening. For the purpose of viewpoint selection locations were identified where most open visibility is likely to occur on these transport routes.

Table 12-13 Transport Routes in the LVIA Study Area.

Transport Route	Description	Theoretical Visibility	Screened In?
Up to 5 km			
R390	From Athlone eat to Mullingar. Road passes 1km north of the turbine cluster.	Mostly full theoretical visibility within the 5km radius, the visibility reduces to the east of the Wind Farm Site	Yes
5 to 10km			
N6	National Primary Road from Galway to Kinnegad, passes 6.5km south of the proposed turbines	Mostly full theoretical visibility	Yes
N55	Secondary road from Athlone northeast to Cavan. The road passes 8km northwest of the turbine cluster, through Glasson and Tang.	Mostly full theoretical visibility	Yes

Transport Route	Description	Theoretical Visibility	Screened In?
N80	Secondary road from Moate southeast to Enniscorthy, Wexford. 7km south of the proposed turbines.	Mostly full theoretical visibility	Yes
R392	From Ballyclare southeast to Mullingar, through Ballymahon and Moyvore, 7.5km north of the turbine cluster	Full/Partial TV along the route within 10km north of the Wind Farm Site	Yes
R391	Regional Road from Clara northeast to Mullingar.	Mostly partial theoretical visibility	No
R444	Regional Road from Shannonbridge north to the M6 at Moate.	Mostly no theoretical visibility	No
10 to 15km			
Railway Line	The railway line from Dublin to Galway/ Sligo runs within the LVIA Study Area through Clara and Athlone. It runs 12.5km from the bottom of the proposed site boundary.	Mixed visibility with partial to no visibility past the 15km radius.	No
R393	Regional Road linking Longford to Mullingar. 14km northeast of the proposed turbine cluster	Mostly full theoretical visibility	Yes
R397	Regional road in Ireland linking Longford Town to Ballymahon. 13km northwest of the proposed turbines	Mostly full theoretical visibility	Yes
R399	From the N55 east to the R393 through Taghshinny and Colehill	Mostly full theoretical visibility	Yes
R436	Regional road in Ireland linking Kilbeggan, County Westmeath and Ferbane, County Offaly, passing through Clara. 13km southeast of the proposed turbines.	Mixed theoretical visibility	No
R362	Regional road in Ireland linking Dunmore on the N83 with the M6 at Athlone.	Mostly full theoretical visibility	Yes
15 to 20km			
N52	The N52 road is a national secondary road in Ireland. It links	Mixed theoretical visibility	No

Transport Route	Description	Theoretical Visibility	Screened In?
	the M7 motorway from just south of Nenagh, County Tipperary to the M1 motorway north of Dundalk in County Louth.		
20 to 25km			
N4	National primary road in Ireland, running from Dublin to the northwest of Ireland and Sligo town. The N4 passes approx. 23.3km northeast of the proposed turbines	Mostly partial theoretical visibility	No
N52	National secondary road in Ireland. It links the M7 motorway from just south of Nenagh, County Tipperary to the M1 motorway north of Dundalk in County Louth. The N52 passes approx. 20.2km southeast of the proposed turbines	Mostly full theoretical visibility	Yes
R400	A regional road in Ireland, linking Mullingar, County Westmeath to the R419 at Cushina, County Offaly. The R400 passes approx. 23.6km southeast of the proposed turbines	Mostly full theoretical visibility	Yes
R394	a regional road in Ireland linking the N55 in County Cavan to Mullingar in County Westmeath. The R394 passes approx. 24.8km northeast of the proposed turbines	No theoretical visibility	No
R398	A regional road in Co. Longford. The R398 passes approx. 21.3km northwest of the proposed turbines	Mostly full theoretical visibility	Yes

12.5.2 Visual Receptor Preliminary Assessment

After identifying the visual receptors in the LVIA Study Area based on designated scenic amenity, viewing areas, settlements, recreational and tourist destinations, recreational routes and transport routes a preliminary assessment was carried out to screen out visual receptors that will not be impacted by the proposed turbines. Zone of Theoretical Visibility mapping and visibility appraisals conducted on site during surveys undertaken in 2021and 2022 were used to scope out visual receptors from further assessment. Table 12-14 below displays the visual receptors that were screened out due to the lack of theoretical visibility found from the ZTV mapping. Further onsite appraisals were then conducted to assess the screening between receptors and the Wind Farm Site.

*Table 12-14 Visual Receptors **Screened Out** from Theoretical Visibility*

Visual Receptor Category	Visual Receptor with no theoretical visibility found from ZTV mapping (or views focussed away from the proposed turbines)
Designated Scenic Routes and Views	W-V1, W-V2, W-V3, W-V4, W-V5, W-V6, W-V7, W-V10, Mullingar Cycle Hub, Westmeath Way, Táin Trail, W-V11, W-V12, W-V15, W-V18, O-V3, L-SR-I17, L-SR-F17, L-SR-F20, W-V19, W-V21, W-V-22, W-V23
Osi Viewing Areas	W-V1, OSI-V2, OSI-V3
Settlements	Baylin, Ballycumber, Castledaly, Castletown Geoghegan, Loughnavalley, Rathconrath, Kenagh, Ballynagore, Legan, Ballinea, Ballinahown, Ballydoghan, Glasson, Ferbane, Derraghan, Moydow, Ardagh, Killashee, Stonepark, Edgeworthstown, Rathowen, Mullingar, Tullamore, Mucklagh
Recreational Routes	Newcastle Wood Walking routes, Royal Canal Greenway, Mullingar Cycle Hub Loop 2, Westmeath Way, Clara Esker Loop Walks, Rinn Duin Loop Walks, Offaly Way, National Famine Way, Grand Canal Way
Transport Route	R444, Railway Line, R362, N52, N61, R391, R436, R444, R394, N4

In the case of the visual receptors shown in Table 12-15 below, views towards the turbines were either entirely screened or substantially screened from view. In some cases, the factor of distance to the Wind Farm Site as well as the directional focus of views was included in the screening assessments and was a contributing factor precluding these locations being selected as viewpoints. The following receptors have been screened out from further assessment due to the very limited visibility of the proposed turbines anticipated as determined by on-site appraisals.

*Table 12-15 Visual Receptors **Screened Out** from Actual Visibility from Onsite Appraisals*

Visual Receptor Category	Visual Receptor with no significant visibility found on site (or views focussed away from the proposed turbines)
Designated Scenic Routes and Views	W-V1, W-V2, W-V3, W-V4, W-V5, W-V6, W-V7, W-V10, Mullingar Cycle Hub, Westmeath Way, Táin Trail W-V11, W-V12, W-V15, W-V18, O-V3, L-SR-I13, L-SR-I14, L-SR-I15, L-SR-I16, L-SR-I17, L-SR-F17, L-SR-I18, L-SR-F20, W-V13, W-V16, W-V17, W-V19, W-V21, W-V-22, W-V23
Osi Viewing Areas	W-V1, OSI-V2, OSI-V3
Settlements	Ballymahon, Baylin, Ballycumber, Castledaly, Castle Geoghegan, Loughnavalley, Rathconrath, Kenagh, Ballynagore, Legan, Ballinea, Ballinahown, Carrickboy, Ballydoghan, Newtowncashel, Glasson, Tang, Forgney, Moyvore, Barry, Colehill, Taghshinny, Ratharney, Athlone, Kilbeggan, Monksland / Bellanamullia, Hudson Bay / Barrymore, Pollagh, Ballynacarrigy, Tubberclaire, Clara, Ferbane, Derraghan, Moydow, Ardagh, Killashee, Stonepark, Edgeworthstown, Rathowen, Mullingar, Tullamore, Mucklagh, Ballinalack, Gainstown, Tyrellspass

Visual Receptor Category	Visual Receptor with no significant visibility found on site (or views focussed away from the proposed turbines)
Recreational Routes	Newcastle Wood Walking routes, Royal Canal Greenway, Mullingar Cycle Hub Loop 2, Westmeath Way, Clara Esker Loop Walks, Rinn Duin Loop Walks, Old Rail Trail, Offaly Way, National Famine Way, Grand Canal Way
Transport Route	R444, Railway Line, R362, N52, N61, R392, R391, R397, R436, R444, N6, N80, R399, R393, R394, N4, N52, R400, R398

Following the pre-assessment exercise, the visual receptors listed below in Table 12-16 have not been screened out for any of the reasons outlined above. Therefore, these receptors are screened in and will be assessed further in the assessment below (Section 12.7.3.2). In order to inform the assessment, individual viewpoints were selected at or along those receptors, from which photomontages were produced. In some instances, a visual receptor may be represented by a photomontage viewpoint that is closer to the Wind Farm Site but of similar geographical location and orientation.

Photomontage imagery was captured from many locations in the LVIA Study Area. 15 No. Photomontage viewpoints were selected for the final EIAR Volume 2: Photomontage Booklet. A Hill of Uisneach Rendered Wireline (VP16) is included within Volume 2 to help assess the impacts of the proposed turbines on the Hill of Uisneach. Before selection of the final viewpoints, early-stage photomontages (Photowires) were produced from almost all of the visual receptors listed below. In some instances, the Photowires indicated limited visibility (e.g. viewpoints at the Villages of Abbeyshrule and Moate) of the proposed turbines and were not taken forward for inclusion in the final Photomontage Booklet. These early-stage photomontages and the visual receptors they represent are presented in Appendix 12-5 and some will be included and discussed in text during the assessments included in Section 12.7.3.2 of this chapter.

*Table 12-16 Visual Receptors **Screened In***

Visual Receptor Category	Visual Receptor Name (Description)	Photomontage Viewpoint
Designated Scenic Routes	W-V9	VP06
	W-V8	VP03
	W-V36	VP16 (A Rendered Wireline – Not a Photomontage: See Section 12.7.3.2.2)
	Lough Ree Driving Route	AltVP-O, AltVP-S
	Old Rail Trail	AltVP-K
	Royal Canal Way	AltVP-V, AltVP-W, AltVP-X, AltVP-U
	W-V20	VP13
	Longford Designated Scenic Route I14	Represented by AltVP-T
	Longford Designated Scenic Route I15	Represented by AltVP-T

	Longford Designated Scenic Route I16	Represented by AltVP-T
	Longford Designated Scenic Route F21	AltVP-T
	Longford Designated Scenic Route F22	Represented by AltVP-T
Recreational Routes	The Pilgrims Road to Clonmacnoise Cycle Route	Represented by AltVP-T
	Mullingar – Athlone – Old Rail Trail Greenway	AltVP-K
Settlements	Ballymore	VP02
	Moate	AltVP-K
	Ballymahon	AltVP-U
	Mount Temple	VP14
	Abbeyshrule	AltVP-W, AltVP-V, AltVP-X
Transport Routes	R390 Regional Road	VP01, VP02, AltVP-C
	N55 National Road	Alt-VP25, Alt-VP26

The viewpoints listed above were selected according to the key visual receptors identified in the visual baseline where open visibility of the proposed turbines is likely to occur occurs.

Photomontage Viewpoint 15 was captured from Dunamona Motte on account of its cultural heritage value as a National Monument within 10 km of the Wind Farm Site and is included in the EIAR Volume 2: Photomontage Booklet. The visual effects arising from this viewpoint is assessed in Appendix 12-3, however the assessment of the heritage monument itself is included in Chapter 13 – *Cultural Heritage.*

12.5.3 Visual Amenity from Residential Receptors

During multiple surveys conducted in 2021 and 2022, visibility appraisals determined that most visibility of the proposed turbines will occur within 5 km of the Wind Farm Site. This area is a sparsely populated, modified working landscape, however, it is a settled landscape and residential housing is organised along the local road network as well as small settlement clusters around local crossroads and junctions. Some residential receptors located in close proximity to the Wind Farm Site will likely have views of the proposed turbines and are likely to have the greatest visual effects arising as a result of the Proposed Development. For the purposes of this Chapter and in the context of the EIAR, it would be a disproportionate measure to capture imagery, produce photomontages and assess visual effects from every residential dwelling where the proposed turbines are likely to be visible. Several photomontage viewpoint locations representing residential properties located in close proximity to the Wind Farm Site were selected for inclusion in the photomontage booklet and are assessed in Appendix 12-3 and discussed later in this chapter. The following representative viewpoints are located in proximity to residential receptors and settlement centres within 5 km from the Wind Farm Site.

- VP12– townland of Ballynacorra
- VP08 – townland of Moyvoughly
- VP09 – townland of Lissanode
- VP07 – townland of Raheen
- VP10 – townland of Baskin High
- VP06 – townland of Coolatoor
- VP03 – townland of Cloonyveey
- VP02 – Village of Ballymore
- VP01 – townland of Ballymore
- VP04 – On the border of townlands Ballinkeeny and Taghnafearagh
- VP11 - Cartroncoragh

The impact of the proposed turbines on residential visual amenity is discussed in detail in Section 12.7.3.2.3.

12.6 Cumulative Context

In terms of cumulative landscape and visual effects, other wind energy projects are of primary focus, as only these would be described as very tall vertical elements in the landscape and have greatest potential to give rise to significant cumulative effects. As detailed in Section 2.7 in Chapter 2, other wind energy developments within 25km of the Wind Farm Site were identified by searching past planning applications lodged through the various planning authorities (County Councils of Westmeath, Roscommon, Longford, and Offaly, as well as An Bord Pleanála) online planning portals. The search determined no existing or permitted wind farms exist within a 25-kilometre radius of the Wind Farm Site and no cumulative impacts will occur in the LVIA Study Area.

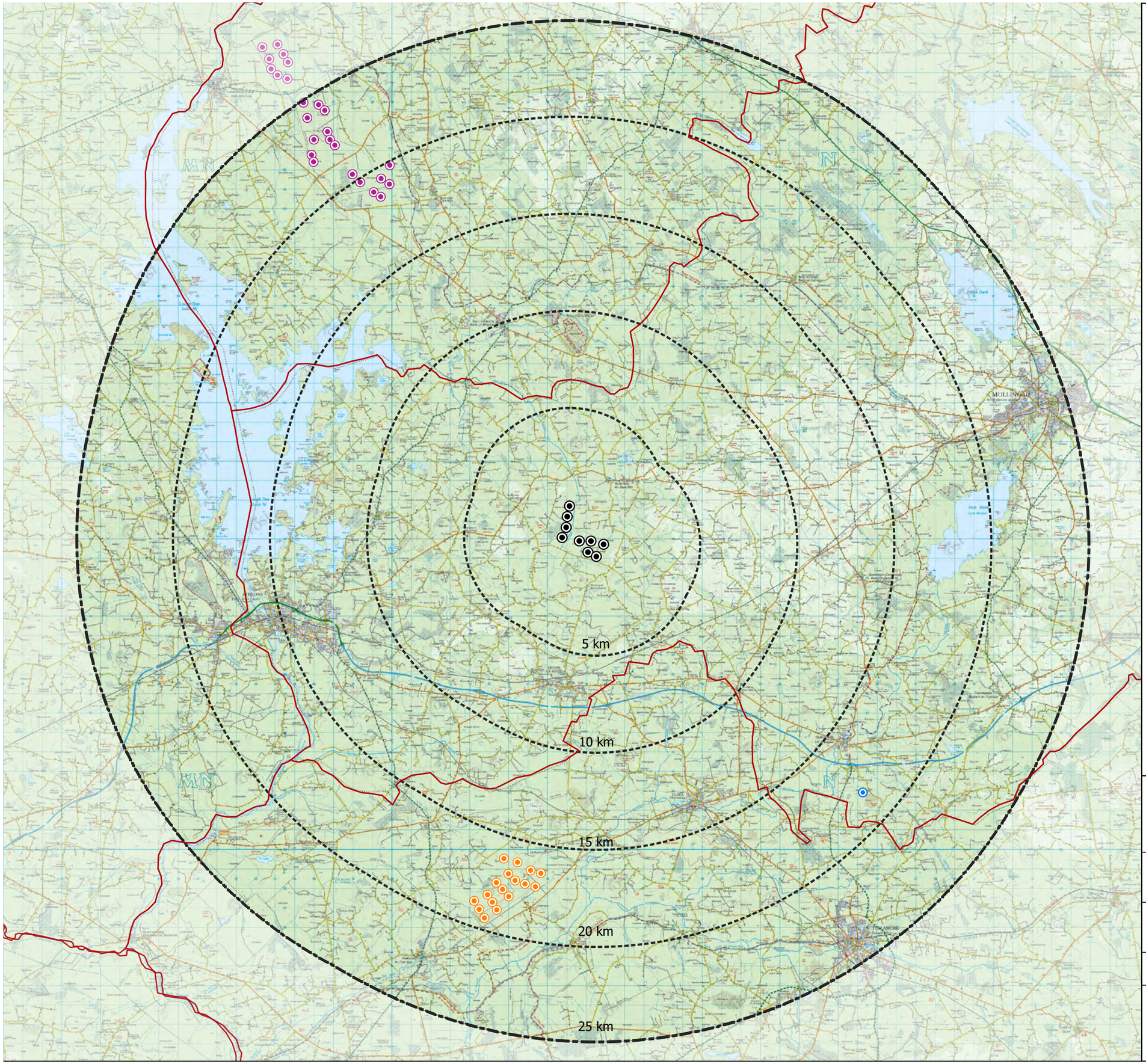
In order to consider all potential future scenarios, this Chapter was cognisant of all well-developed wind farm proposals with specific project specification information available in the public domain at the time of conducting this LVIA. One single wind turbine (currently at planning application further information stage with Westmeath County Council) and two well developed wind farm proposals (Currently at pre-application consultation phase with An Bord Pleanála) were identified within the LVIA Study Area and are listed in Table 12-17 below:

Table 12-17 Other proposed wind farms within 25km of the Proposed Development turbines

Other Wind Farms	Status	No. of Turbines	Distance from the Proposed Development turbines
Kepak Single Wind Turbine	Further Information requested (WCC ref: 22537)	1	18.3 km Southeast
Lemanaghan Wind Farm	Proposed (in Public Domain)	15	16.3km Southwest
Derryadd Wind Farm	Proposed (in Public Domain)	25	18.7km Northwest

Cumulative effects arising as a result of interaction between the Proposed Development turbines and these other 'proposed' developments (listed above) are reliant on an outcome of the planning and consenting system and there is a degree of uncertainty as to whether they will occur (or occur with differing layout and dimensions) in a future baseline scenario. For the avoidance of doubt, this single wind turbine development (Kepak) and these proposed wind farm developments (Lemanaghan and Derryadd) have been included in a cumulative ZTV map (Figure 12-18 below), based on the information relating to these developments that is currently available in the public domain. These developments are also included the EIAR Volume 2: Photomontage Booklet and where appropriate, they are acknowledged, and potential cumulative effects are discussed in the LCA assessment tables included in Appendix 12-2 and the photomontage assessment tables included in Appendix 12-3.

The proposed Lemanaghan wind farm is located 16.3km south-south-west of the Wind Farm Site, the proposed Kepak single wind turbine is located 18.3 km southeast of the Wind Farm Site, the and the proposed Derryadd wind farm located 18.7km north-west of the Wind Farm Site. The location of the single wind turbine development and these proposed wind farms can be identified on the Cumulative Context map, Figure 12-17 below.



Map Legend

- Proposed Development Turbines
- LVIA Study Area
- County Borders
- Proposed Kepak Turbine
- Proposed Derryadd Wind Farm
- Proposed Lemanaghan Wind Farm

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Drawing No.

Figure 12-17

Drawing Title

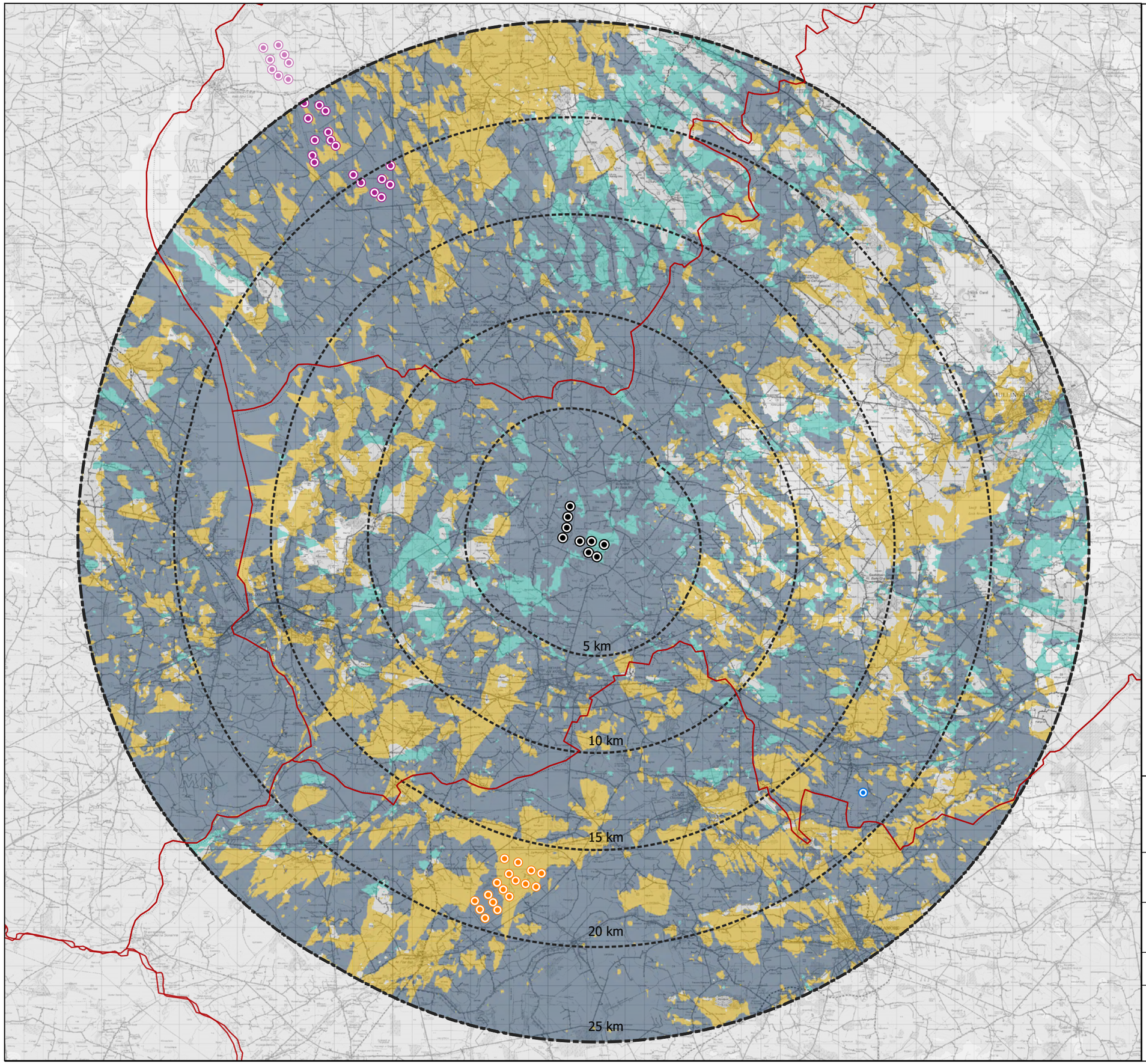
Cumulative Context

Project Title

Umma More Renewable Energy Development

Scale	Project	Date	Drawn By	Checked By
1:190,000	201050	03.11.2022	SF	JW

MKO Planning and Environmental Consultants



Map Legend

- Proposed Development Turbines
- LVIA Study Area
- County Borders
- Proposed Kepak Turbine
- Proposed Lemanaghan Wind Farm
- Proposed Derryadd Wind Farm

Comparative Cumulative ZTV

- Only Proposed Development Turbines Theoretically Visible
- Only Proposed Kepak, Lemanaghan or Derryadd Turbines Theoretically Visible
- Theoretical Visibility of all Four Proposed Renewable Energy Developments

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Drawing No.

Figure 12-18

Drawing Title

Cumualtive ZTV of Proposed Developments

Project Title

Umma More Renewable Energy Development

Scale	Project	Date	Drawn By	Checked By
1:190,000	201050	03.11.2022	SF	JW

MKO Planning and Environmental Consultants

12.6.1 Comparative Cumulative Visibility – ZTV

No Cumulative ZTV map was produced with existing or permitted wind farms as no projects or developments of this type were identified in the LVIA Study Area. Figure 12-18 above shows a cumulative ZTV map of 'proposed' wind farm developments only. Figure 12-18 shows the cumulative theoretical visibility of the proposed Kepak turbine, and the proposed Lemanaghan and Derryadd turbines with the turbines of the Proposed Development (represented in dark blue) within the LVIA Study Area. The yellow displays areas of theoretical visibility where only the proposed Kepak turbine, and proposed Lemanaghan and Derrryadd turbines are visible. Any additional visibility attributed to the additional turbines of the Proposed Development is represented in light green. Additional theoretical visibility of the proposed turbines (areas identified as green) comprises a relatively small spatial extent of the LVIA Study Area.

As noted previously in Section 12.3, the ZTV does not account for localised undulations in topography and other screening factors, and actual visibility in this lowland vegetated landscape is likely to be far less than is indicated by the ZTV. Whilst the cumulative ZTV is a useful tool to aid assessment of cumulative effects and screen out areas where certain cumulative impacts will not occur, its utility is limited in the lowland landscape type of the LVIA Study Area. Notwithstanding the element of probability that these other proposals will need to be first be consented then built, visibility appraisals and photomontage visuals show that there is in fact a very limited likelihood that any cumulative impacts will occur in a vast proportion of the LVIA Study Area. In this landscape type, photomontages are a useful tool for assessing potential cumulative impacts. Due to the distance and screening, the proposed Kepak turbine is not visible from any views presented within the Photomontage Booklet or the Appendix 12-5 Photowire Visuals. The 'proposed view with cumulative' views presented throughout the EIAR Volume 2: Photomontage Booklet include (when visible) the two proposed Derryadd and Lemanaghan wind farms identified in the Cumulative Context exercise.

Due to the substantial separation distances amongst these developments, initial visibility appraisals determined that the turbines of the Proposed Development are only likely to be viewed in conjunction with these development proposals from few isolated, elevated vantage points, where open and long-ranging landscape views to the south and north of the development are available. If they are theoretically visible, all turbines are included within the wireline images and proposed photomontage imagery illustrate actual visibility, refer to EIAR Volume 2: Photomontage Booklet.

The Assessment of Cumulative Effects

An assessment of cumulative landscape and visual effects are included in the assessment of effects detailed in Section 12.7.3. Likely cumulative landscape effects are assessed in the landscape character assessment tables in Appendix 12-2, and likely cumulative visual effects are assessed in the photomontage assessment tables in Appendix 12-3. The results of the cumulative landscape and visual assessments are detailed in Section 12.7.3, *Operational Phase Effects*.

12.7 Likely or Significant Landscape and Visual Effects

All elements of the Proposed Development are assessed in this Chapter, however, as detailed in Section 12.1.3, the focus of assessments throughout the Chapter is upon the turbines of the Proposed Development, as they are deemed to be the essential aspects of the proposal under assessment from a landscape and visual perspective.

12.7.1 'Do-Nothing Scenario

If the Proposed Development were not to proceed, no changes would be made to the current land-use practice of low intensity agriculture. Should this occur the landscape and visual impact would be neutral in the context of this EIAR.

12.7.2 Construction Phase Effects

It is estimated that the construction phase of the Proposed Development will last between approximately 18-24 months. The construction stage of the development will involve construction of 9 No. wind turbines with a maximum blade tip height of 185 metres and all associated works, and a 110 kV onsite substation and associated works, including underground 110kV cabling to connect to the national grid at Thornsberry 110kV substation, as detailed in Chapter 4 of this EIAR. Construction phase effects also include the associated effects resulting from the movement of construction and turbine transport vehicles into and out of the Wind Farm Site, to allow the construction of the turbines and associated elements.

12.7.2.1 Landscape Effects (Construction Phase)

The earthworks such as cut and fill required to facilitate construction of the Proposed Development will have the greatest potential for landscape effects. Where excavation is required, existing landcover, vegetation and spoil will be removed during the construction phase. In most instances, groundworks and excavation trenches will be re-instated upon completion of construction. Where spoil arising from construction activities is managed within the Wind Farm Site, the vegetative top-soil layer will be removed and re-instated following spoil management taking place. The construction activities may potentially cause temporary impacts on the landscape such as the creation of temporary structures, dust, minor soil erosion and minor alterations to drainage. It is considered that this is a short-term, Slight, negative effect in terms of landscape effects.

The construction works will be temporary/short-term in nature and completed as soon as practically possible. All construction activities will follow best practice methods to reduce impacts upon the environment and landscape of the Wind Farm Site. Further details are contained in the Construction and Environmental Management Plan (CEMP) contained in Appendix 4-2 of this EIAR.

12.7.2.2 Visual Effects (Construction Phase)

The most substantial visual effects will arise from requisite construction activities such as building tower sections and erecting the turbines. There will be temporary scenarios during the construction phase where the proposed turbines will be partially constructed and may be seen as either stand-alone tower sections, or incomplete turbines where only one or two blades are visible. The equipment and vehicles required to transport and erect the wind farm components include large cranes and large haulage vehicles. These construction activities will cause Slight, short-term negative visual effects.

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

detailed description of the Proposed Development is included in Chapter 4 of this EIAR. The following sections assess the visual effects associated with the construction phase of the other (non-turbine) components of the Proposed Development:

Grid Connection Underground Electrical Cabling Route – Construction Phase Effects

The underground electrical cabling route will be located underground, therefore the greatest effects attributed to this element of the Proposed Development will occur during the construction phase. The underground electrical cabling route works are to be carried out along existing public road corridors. The construction phase of the underground electrical cabling route will be short-term, localised and transient in nature, as the works move along the cabling route. The works will include roadside vegetation removal, soil/road surface stripping, excavation and other associated construction activities. These activities will cause temporary change to the physical landscape along the underground electrical cabling route. Changes will be localised to the immediate environment surrounding the Grid Connection and will not permanently affect the character of the landscape setting or visual amenity of the wider area. The proposed Grid Connection underground cabling works are likely to cause 'Slight' temporary, negative landscape and visual effects.

The following measures should be implemented to mitigate effects during the construction phase and operational phase of the Grid Connection underground electrical cabling route:

- In all circumstances, excavation depths and volumes will be minimised, and excavated material will be re-used where possible.
- Where the cable trench is to be located in the road verge, subsoil should be piled on site and re-used after cabling works. Should any medium planting be removed, it should be replaced with the same or similar species whenever it is not possible to salvage and reinstate. New topsoil should be provided should the existing topsoil not be of sufficient standard (to comply with BS 3882:2015).
- Any areas of bare soil remaining after the landscaping phase will be seeded as soon as possible with a grass seed mix to minimise sediment run-off.

Turbine Delivery Route (TDR) Accommodation Works

Works such as road widening are sometimes required along proposed turbine transport routes to accommodate the large vehicles used to transport turbine components to wind farm sites. In some instances, minor temporary alterations will be required to the existing streetscape and roundabout islands, temporary local road widening, overruns of roundabout island and temporary relocation of some signs and street furniture. Full details of the assessment are included as part of the traffic impact assessment set out in Chapter 14 of this EIAR.

Removal of hedgerows and earthworks are required for the provision of temporary roads in order to facilitate turbine delivery at locations 6 and 7 as detailed in Section 14.1.9 in Chapter 14. The landscape value and sensitivity of the site of the TDR accommodation works are deemed to be low and the change to occur will be highly localised. These works are likely to cause 'Slight' temporary, negative landscape and visual effects. However, once planting and reinstatement of these features is implemented and vegetation has re-established, as detailed in Chapter 6, in the operational phase, no significant landscape or visual effects will occur.

Proposed Substation

Visual effects will occur as the proposed substation is built due to the earthworks and requisite construction activities, these will cause a substantial but localised change to views in the immediate area. As established in the baseline investigations, the proposed substation is located within a field adjacent to the southern boundary of the Wind Farm Site. Due to screening from mature treelines, no visibility of the proposed substation construction is anticipated from any nearby residential receptors.

The only visual receptors likely to have visibility of the proposed substation during the construction phase are users of the local road who will have momentary view as they pass the proposed southern access road, these receptors are deemed to be Low sensitivity. Therefore, visual effects are likely to be highly localised, Negative, Short-Term and will be 'Moderate'.

Site Access Roads and Hardstand Areas

The proposed access roads and hardstand areas are flat features and will be most visible within their immediate surroundings, within the Wind Farm Site where there are no sensitive visual receptors. Every use will be made of the existing farm and access tracks on the Wind Farm Site. Some tracks will be upgraded appropriately whilst several stretches of new internal roads will need to be constructed. The works on the access roads and hardstands around Turbines T6 and T9 will be visible from receptors along the elevated ridgeline north-east of the Wind Farm Site, in proximity to Viewpoint 12. The impact of the construction of these flat and hard surfaces will be very localised. The visual effects arising from the access roads and hardstand areas are considered to be highly localised, short-term and 'Slight'.

Meteorological (Met) Mast

One met mast is proposed as a part of the Wind Farm Site. This will be a slender structure, 30 metres in height, and will not be an imposing structure in terms of visual impact. The landscape and visual effects of the construction of the proposed mast will be localised, considering that construction activities related to this will be most visible within their immediate surroundings. Within the site and its immediate landscape setting, the landscape and visual effects arising from the construction of the met mast is considered to be of highly localised Negative, Short-Term 'Slight' effects.

12.7.3 Operational Phase Effects

12.7.3.1 Landscape Effects (Operational Phase)

12.7.3.1.1 *Landscape of the Proposed Development Site*

The landscape character of the Wind Farm Site will undergo a change in character from its current condition by the introduction of vertical man-made structures into the landscape of the Wind Farm Site. The footprint of the proposed turbines and ancillary infrastructure comprises 23 Ha of the area within the EIAR Site Boundary at the Wind Farm Site. There will be a substantial magnitude of change to the landscape in localised areas within the Wind Farm Site where the landscape is materially altered (infrastructure footprint).

In a local context, the Wind Farm Site is located in a modified working landscape of local value. It is not recognised as a landscape of any regional or national value or importance. The Wind Farm Site and wider setting is located within a Landscape Character Area which does not comprise any County Westmeath High Amenity Areas and has historically been designated as an LCA with the greatest capacity for wind energy in Co. Westmeath (see Section 12.4.1.1.3). The Wind Farm Site itself and its immediate setting do not comprise any unique landscape receptors of county regional or national interest. In consideration of these points, the Wind Farm Site is deemed to be of Low Sensitivity.

Low sensitivity balanced with a substantial magnitude of change amounts to **long-term 'Moderate' landscape effects** upon the physical fabric of the landscape of the Wind Farm Site. These direct landscape effects will be highly localised to the footprint of the proposed infrastructure at the Wind Farm Site. Effects on the perceptual and aesthetic qualities of the character of the Wind Farm Site are also deemed to be 'Moderate'.

Mitigation of Landscape Effects within the Landscape of the Wind Farm Site

The following measures have been included in the Proposed Development design in order to avoid or reduce direct effects on landscape receptors of the Wind Farm Site:

- The spatial configuration of the proposed infrastructure footprint has been carefully designed to minimise the loss of valuable landscape receptors on the Wind Farm Site, such as mature woodland, Annex1 habitats or features of cultural heritage value.
- The internal site road layout makes use of the existing informal agricultural tracks wherever possible, to minimise the requirement for new tracks within the Wind Farm Site and where possible retain the integrity of existent field boundary walls, hedgerows and trees.
- To minimise cut and fill activities required to construct the Proposed Development, the proposed access roads, and other infrastructure such as hard stands have been designed to align with the existing terrain within the landscape of the Wind Farm Site.
- In all circumstances, excavation depths and volumes will be minimised, and excavated material will be re-used where possible.
- During initial vegetation stripping, all topsoil material will be temporarily stored on Wind Farm Site and used for "dressing" the edges of the development infrastructure during reinstatement/regrading, including that of the spoil management areas. This will be particularly important in areas of cut and fill. The stripped topsoil will contain a natural seed source of local provenance and result in the establishment of a species rich grassland.

Residual Landscape Effects

Once the Proposed Development is operational and construction activity is complete, the landscape will naturally re-vegetate around the Proposed Development footprint with the aid of mitigation measures (e.g., retention of natural seedbank during soil stripping). Considering the mitigation measures above, residual effects upon the landscape of the Wind Farm Site are deemed to be 'Slight'.

12.7.3.1.2 *Effects on Landscape Receptors of High Sensitivity.*

Several designated landscape receptors were identified in the landscape baseline as having high sensitivity and some theoretical visibility indicated by the ZTV, the likely landscape effects on these receptors are discussed below. The Proposed Development will not directly alter the physical fabric of these landscape receptors and therefore any landscape effects are only likely to impact their character or setting. In all instances there will be no significant impact on the sensitivities of these receptors due to the large set back distances and limited visibility of the Proposed Development from them. Where appropriate, assessment of visual effects from these landscape receptors are discussed and reported in the following section – *Visual Effects (Operational Phase).*

Clonmacnoise – Cultural Heritage Landscape

The Archaeological Complex at Clonmacnoise is a World Heritage Site and qualifies as a heritage landscape of national and international renown and a landscape of Very High Sensitivity. The Clonmacnoise landscape shows areas of varying theoretical visibility as well as some areas of full theoretical visibility. Clonmacnoise is located at low elevation on the southern banks of the Shannon River and is located approximately 23.5km south-west of the nearest proposed turbine.

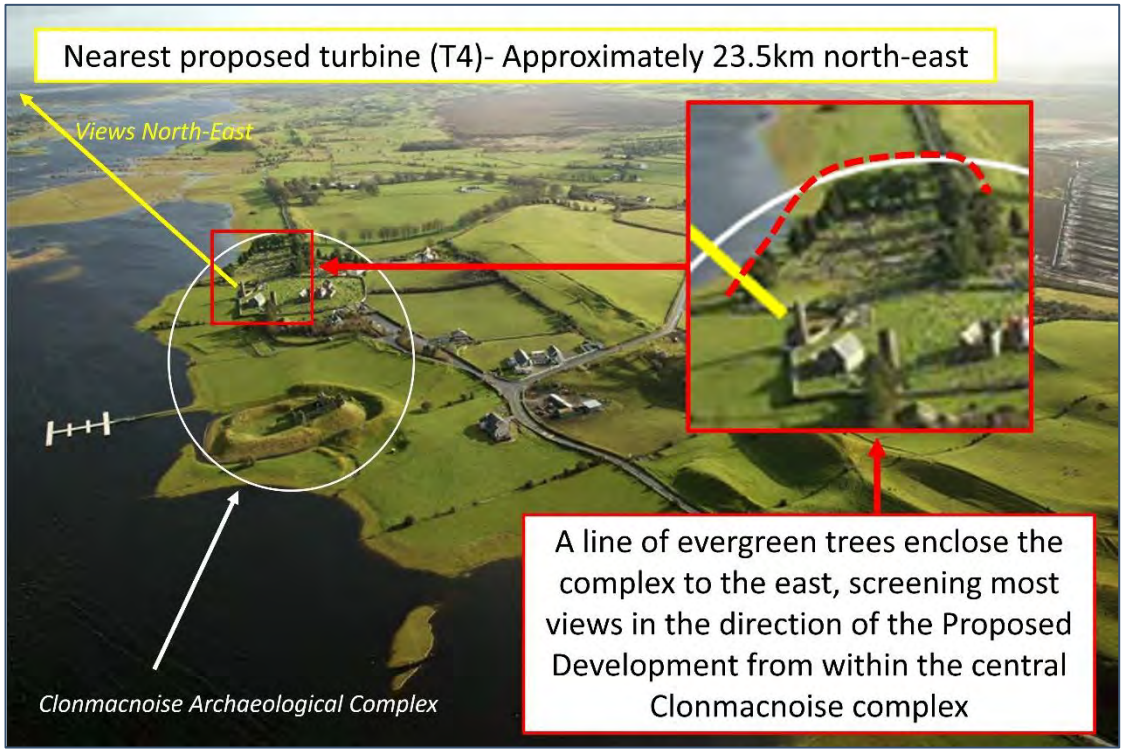


Figure 12-19 Landscape of Clonmacnoise from above; Extracted from the Offaly County Development Plan (Offaly County Council, 2021). Annotations show the location of the Clonmacnoise site, and indicative direction of the proposed turbines.

Views towards the Wind Farm Site from Clonmacnoise are directed along the Shannon Corridor, a low-lying flat landscape comprising the river itself, the floodplain and peatlands. Distant visibility from such a low-lying receptor is very limited in such a flat landscape, particularly at a distance of 23.5km. Beyond the Shannon corridor, the landform rises around the village of Mount Temple (See Viewpoint

14) which would substantially screen the proposed turbines from view. As shown in Figure 12-19 above, many views towards the Wind Farm Site from within the site at Clonmacnoise are further limited by a line of evergreen trees enclosing the eastern graveyard as demonstrated by three Photowire visualisations included in Appendix 12-5 (AltVP-L; AltVP-M; & AltVP-N). A wireline was produced from Clonmacnoise and is presented in Figure 12-21 below.

Figure 12-20 AltVP-L Photowire Image from Clonmacnoise, displaying the screening from by the treeline towards the proposed turbines – See larger Scale Photowire in Appendix 12-5

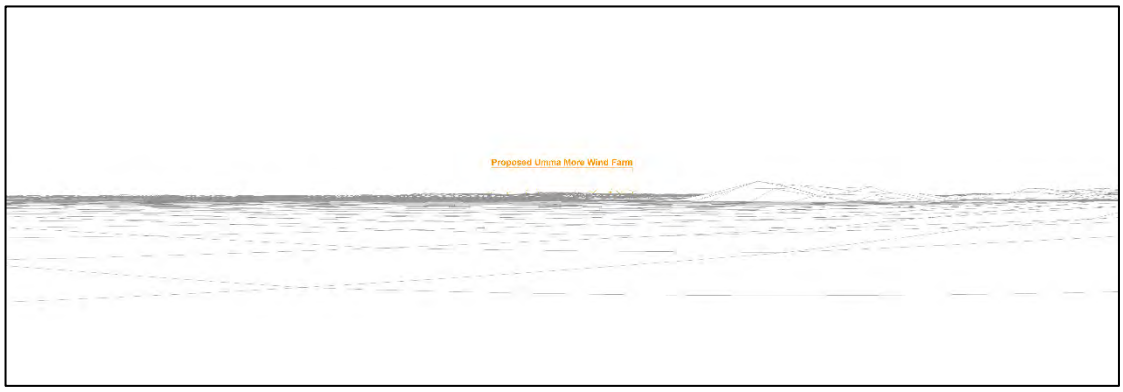


Figure 12-21 AltVP-L 53.5° Wireline of the proposed turbines from Clonmacnoise (to match AltVP-L Photowire above)

The wireline above is rendered from the location as presented in Photowire AltVP-L, it shows the proposed turbines are very small features at this distance. If viewed from locations where no screening exists, for example on the Shannon River itself, it would be very difficult to identify them within long-ranging distant views from areas of such low elevation. Considering the substantial set back distance, physical buffers in the intervening landscape and enclosed eastern boundary, the Proposed Development will cause a Negligible magnitude of change upon the character or setting of the landscape at Clonmacnoise. Although this is a receptor of very high sensitivity, on balance, it is considered that no significant landscape and visual effects are likely to occur from Clonmacnoise and it is not considered further in this Chapter.

Hill of Uisneach

The Hill of Uisneach is a Landscape of Very High sensitivity on account of its cultural heritage value and relevant designations in the WCDP, reported previously in Section 12.4. The nearest proposed turbine is located approx. 8.8km west of the summit of the Hill and will not materially alter the landscape of the Hill of Uisneach itself and only perceptual effects on the character of the landscape of the Hill will potentially occur. As illustrated in the visuals below, a landscape of highly vegetated and undulating farmland provides a substantial physical buffer between the Hill of Uisneach itself and the Wind Farm Site.

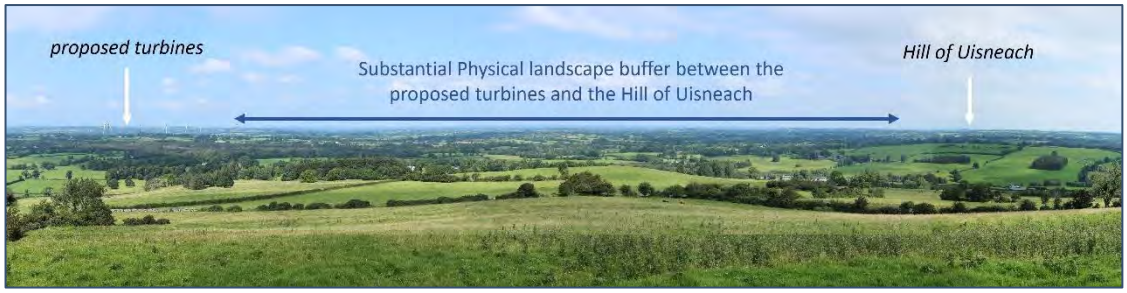


Figure 12-22 The location from the Wind Farm Site and The Hill of Uisneach, as viewed from atop Knockastia Hill. Imagery extracted from Photomontage Viewpoint 06 in the EIAR Volume 2: Photomontage Booklet

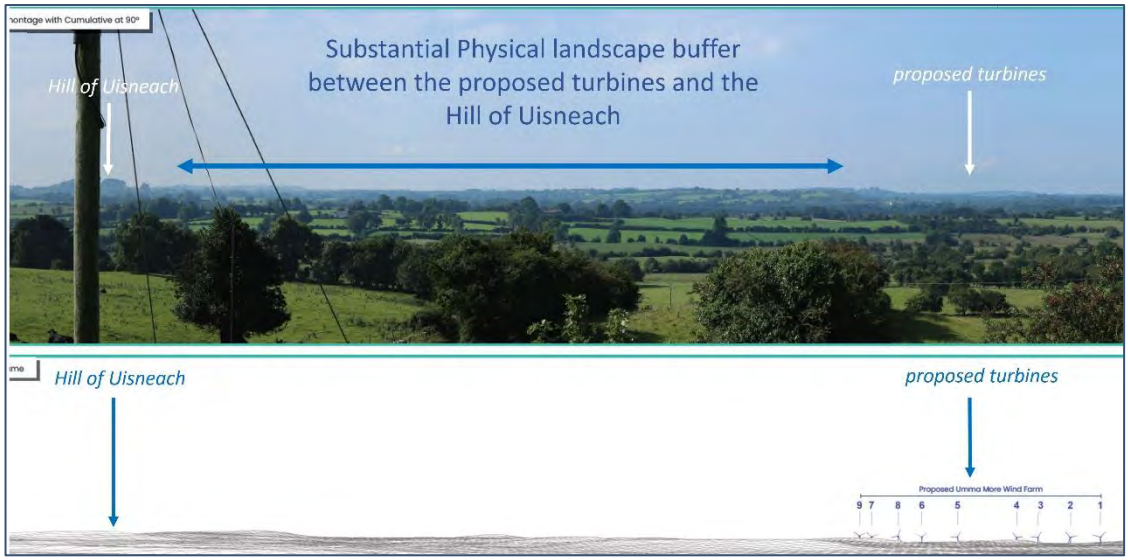


Figure 12-23 The proposed turbines at the Wind Farm Site and The Hill of Uisneach, as viewed from atop Laragh Hill. Imagery extracted from Photomontage Viewpoint 13 in the EIAR Volume 2: Photomontage Booklet

Whilst the proposed turbines will be visible from elevated vantage points on the Hill, the proposed turbines will not alter the immediate setting, appearance and context of monuments at the Hill of Uisneach and its immediate landscape. There are large areas of the Hill where the proposed turbines are unlikely to be seen. As noted in the landscape baseline, the Hill has no specific cultural association with the landscape of the Wind Farm Site and there is no discernible connectivity between the Hill of Uisneach and any heritage monuments within the EIAR Site Boundary. The proposed turbines do not interfere with any visual connectivity between the Hill of Uisneach and other important heritage sites of prominence in the area. An assessment of visual effects on the scenic amenity at the Hill of Uisneach is discussed and reported in the following section – *Visual Effects (Operational Phase).* On balance, it is deemed there will be a 'Moderate' effect on the landscape character of the hill and the Hill of Uisneach LCA (See Appendix 12-2 & Discussion of LCAs in the following section).

Lough Ree

Lough Ree is a County Westmeath High Amenity Area and an area of protected amenity in County Roscommon and is afforded a high sensitivity. Whist the ZTV indicates some theoretical visibility of the proposed turbines, actual visibility is likely to be extremely limited. At its closest point Lough Ree is Approximately 11.2 km northwest of the nearest proposed turbine (T1). The high amenity areas around the lough are generally at very low elevation and scenic amenity is primarily directed west, north and south from the eastern shore in the opposite direction of the Wind Farm Site. No visibility is anticipated from the western shore of Lough Ree located in the LVIA Study Area in Co. Roscommon. Whilst there are open views across the Lough itself, the slightly elevated landform and highly vegetated landscape enclosing the eastern shore will obscure the proposed turbines from view. In winter months when vegetation has lost its foliage, there is potential for the turbines of the Proposed Development to be intermittently visible from elevated vantage points on the north-eastern banks in County Longford.

When this occurs, the turbines will be distant background features and will not impact upon the character or any valuable sensitivities of the landscape around Lough Ree and no significant landscape effects will occur. Photomontage imagery was captured from Longford Scenic Route F21 across Lough Ree to the north-west of the LVIA Study Area and a Photowire is included in Appendix 12-5 (AltVP-T). An assessment of visual effects on the scenic amenity in County Longford described above is discussed and reported in the following section – *Visual Effects (Operational Phase).*

River Inny

The LCDP designates Broad Zones within the LVIA Study Area, surrounding the River Inny which is a locally valuable landscape receptor deemed to be of medium sensitivity. The river flows in an east to west direction before flowing into Lough Ree and eventually the River Shannon. A section of the River Inny runs approximately 8.8km north of the proposed turbines through the LVIA Study Area. The ZTV indicates full theoretical visibility of the proposed turbines along the River Inny throughout the LVIA study area. However, actual visibility will be very limited as the river flows through LCU 7, due to the screening from the forestry throughout the LCU causing a negligible change to the character of this landscape receptor, and no significant effects will occur.

Royal Canal

The Royal Canal is a designated Broad Zone within County Longford and a designated Landscape Character area within Westmeath. The canal provides amenity value and is a landscape receptor of high sensitivity, protected in the landscape policy of both County Longford and County Westmeath. Whilst the ZTV indicates full theoretical visibility of the proposed turbines along the Royal Canal within Longford LCU7, actual visibility will be very limited, as determined by appraisals conducted during site visits. The Royal Canal is sited at a similar, or lower elevation than the proposed turbines. As shown in AltVP-V, AltVP-W and AltVP-X, views towards the Wind Farm Site are screened by distant woodland and undulations in the landform across the landscape and there will be a negligible magnitude of change to the character and setting of this receptor and No significant effects will occur.

Clara Bog

Clara Bog is located 13.5km south of the closest proposed turbine in County Offaly. The bog is a Proposed Natural Heritage Area, Nature Reserve and Ramsar Site and is deemed to be a landscape receptor of high/medium sensitivity. There are sections within the bog that show full theoretical visibility however, there is one designated walking route through the bog and there is no visibility of the proposed turbines from this location. Actual visibility from other areas within Clara Bog will be limited due to set back distance and screening within the flat intervening landscape and No significant effects are likely to occur.

River Shannon

The River Shannon is located 15.4km from the proposed turbines at its closest point in Athlone, County Westmeath. The ZTV shows mixed theoretical as river flows north to south through County Westmeath and County Offaly from Lough Ree. Sections of the river show no theoretical visibility as the river runs through Athlone due to the low elevation of the river within the town. Within County Offaly the ZTV shows full theoretical visibility in sections along the river by Clonmacnoise. From site visits actual visibility of the proposed turbines from this area was deemed to be limited due to the low-lying, flat landscape of the river corridor and surrounding area. No significant effects are likely to occur on the character of this landscape receptor.

12.7.3.1.3 Landscape Character Areas – Landscape Effects

An assessment of the effects on landscape character was undertaken for the ten designated Landscape Character Areas within the LVIA Study Area for Landscape Character (within 15 km from the Wind Farm Site) that were identified as having potential for visibility of the proposed turbines in the Landscape Receptor Preliminary Assessment previously in Section 12.4.4.2.1. The individual assessments for each LCA are summarised in Table 12-18 below and are included in detail in *Appendix 12-2* of this EIAR - *Landscape Character Assessment Tables*. The assessment criteria and grading scales which aided the assessment of landscape effects are detailed in Section 1.5.2 of the methodology appendix – *Appendix 12-1.*

Table 12-18 Landscape Character Area Assessment Summary

Landscape Character Area	LCA Sensitivity to Wind Farm Development	Magnitude of Change	Residual Effect - Significance of Effect on Landscape Character (EPA, 2022)
Westmeath LCA 7 - Western Lowlands	Low	Moderate	**Slight**
Westmeath LCA 6 - Lough Ree/Shannon Corridor	High	Negligible	**Slight**
Westmeath LCA 8 – South Central Hills	Medium	Slight	**Slight**
Westmeath LCA 9 – Hill of Uisneach	Very High	Slight	**Moderate**
Westmeath LCA 11 – South Westmeath Eskers	Medium	Negligible	**Not Significant**
Longford LCU 5 - Inny Basin	Low	Negligible	**Imperceptible**
Longford LCU 6 - Peatlands	Low	Slight	**Imperceptible**
Longford LCU 7 – Open Agricultural	Medium	Negligible	**Not Significant**
Longford LCU 3 – Shannon Basin/Lough Ree	High	Negligible	**Slight**
Offaly Interim LCA – North-Western Lowland Farmland and Marginal Peatland	Medium	Negligible	**Not significant**

Discussion of Landscape Effects on LCAs

The largest magnitude of change will occur in Westmeath LCA 7 (Western Lowlands) as the proposed turbines will materially change the landscape of this LCA. The proposed turbines are likely to be most visible from areas within 5km of the Wind Farm Site and elevated areas within this LCA. As shown on the ZTV in Figure 12-14, there are a number of areas of no visibility in the southwest of this LCA.

Onsite appraisals found that there was limited visibility past 5km of the Wind Farm Site due to the screening from vegetation and the ridgelines of the small valley enclosing the Wind Farm Site. The proposed turbines will to some degree change the visual and perceptual aesthetic qualities of some areas in this LCA. The magnitude of change was deemed to be **'Moderate'** as the addition of uncharacteristic new features (turbines) will likely cause a change in landscape character in a localised area but will not redefine the character of the LCA. The Westmeath County Development plan describes the area as able to accommodate for visual containment.

> *"Visual containment in the landscape is created by elevated areas and glacial kames, irregular ridges or mounds of gravel deposited by melting glaciers feature at intervals. Low-lying areas, however, are generally contained visually due to high quality, species rich hedges that dominate field boundaries in the area, limiting the extent of views across the landscape."*

The proposed turbines are all sited in an area designated as 'Low' for wind energy capacity. This LCA was previously designated as having the most capacity ('Medium Capacity') for wind energy development in the Westmeath County Development Plan (2014-2020) that was adopted on the 18th of February 2014 as well as being designated 'Medium' Capacity for wind energy in the 2021-2027 Draft Westmeath County Development Plan. LCA 7 contains no areas of high amenity and has been designated as '**Low**' in the Landscape Character Assessment due to the absence of High Amenity Areas and Protected Views. The residual effects on the character of this LCA are deemed to be '**Slight**'.

Westmeath LCA 9 – Hill of Uisneach was deemed to be of **'Very High'** Sensitivity as it is internationally considered to be an important cultural landscape and a large section of the area is designated as a High Amenity Area. The Capacity for wind energy within the LCA is designated as 'None' (Westmeath County Development Plan 2021-2027). The ZTV showed mixed visibility within the LCA with over half (57%) of the LCA having no theoretical visibility of the turbines. There was full theoretical visibility from on top of the Hill of Uisneach. As the Hill of Uisneach provides panoramic views over the landscape there is potential of cumulative effects, as there is theoretical visibility of the proposed Kepak, Lemanaghan and Derryadd turbines. However, due to the distance cumulative effects will be negligible. Visual and cumulative effects were assessed in further detail within Section 12.7.3.2 – *Visual Effects* and Section 12.7.3.1.4 - *Cumulative Landscape Effects.* The magnitude of change was deemed to be '**Slight',** and the overall residual effect was deemed to be '**Moderate'**.

The Proposed Development will not materially alter any of the other LCAs in the LVIA Study Area. However, when the proposed turbines will be visible from another LCA, they will likely cause a 'Slight' impact on landscape character, as reported for 4 No. LCAs.

12.7.3.1.4 Cumulative Landscape Effects

Cumulative impacts on the character of the wider landscape are most likely to occur as a result of the proposed turbines, where they might be visible in conjunction with other wind farm developments. A comprehensive assessment of likely effects arising from the intervisibility of the Proposed Development turbines and the other proposed wind turbines are included in 12.7.3.4 *Cumulative Visual Effects.*

There are no existing or permitted wind farms located within the surrounding landscape of the LVIA Study Area and no cumulative landscape effects will occur with other existing or permitted wind turbines. In order to assess all future likely scenarios other wind energy proposals are considered, and only two proposed wind farms were identified. The proposed Lemangahan turbines are located over 16km from the Proposed Development turbines in Offaly Interim LCA: North-Western Lowland Farmland and Marginal Peatland. Cumulative effects between the Proposed Development turbines and turbines of this proposed wind farm would only likely be limited to areas of higher elevation to the north of the Offaly LCA and south of Westmeath LCA 7 where there may be views of turbines in both directions. The proposed Kepak turbine is located 18.3km southeast of the nearest Proposed Development turbine in Westmeath LCA 11, it is unlikely that there will be views of this proposed Kepak turbine in combination with the Proposed Development turbines from the surrounding

landscape. The proposed Derryadd turbines, located in Longford LCU6, are set back over 18km from the Wind Farm Site. These two proposed wind farms and the proposed Kepak turbine have a substantial set back distance from the Proposed Development turbines and cumulative effects upon the landscape are likely to be very minor.

The Wind Farm Site is located within Westmeath LCA 7. Within this LCA there are a number of areas of high elevation, from these areas there may be views of the proposed turbines in combination with the proposed Lemanaghan or Derryadd wind farms. The Proposed Development turbines may also be visible in combination with these proposed wind farms from areas of high elevation within other LCAs. The proposed Kepak turbine may be visible in combination(in succession – alternative field of view) with the Proposed Development turbines from locations of high elevation. Westmeath LCA 9 is deemed very high sensitivity and in elevated areas there will be very limited views of the Proposed Development turbines in combination with the proposed Lemanaghan and Derryadd wind farms. There may be instances where the proposed Kepak turbine is visible in succession with the Proposed Development turbines from elevated vantage points within Westmeath LCA 9. The visibility will however not amount to significant cumulative effects due to the distance between all the proposed turbines and LCA 9. Westmeath LCA 8 contains several areas of high elevation within the LCA: Knockastia, Hill of Laragh etc. The cumulative visual effects arising from these receptors are discussed in further detail within Section 12.7.3.4 - *Cumulative Visual Effects*.

12.7.3.2 Visual Effects

12.7.3.2.1 *Selection of Photomontage Viewpoints*

Photomontages were used to aid the assessment of the visual effects arising as a result of the proposed turbines from 15 no. viewpoint locations, which are presented in EIAR Volume 2: Photomontage Booklet. These 15 No. viewpoint locations (and Viewpoint 16*) are shown on Figure 12-24 and Figure 12-25 below as well as the A0 Map – *Appendix 12-4 LVIA Baseline Map*. The locations chosen for photomontages follow a detailed and extensive process including review of baseline information, site visits and high-quality photo taking at multiple locations within the LVIA Study Area. Many locations, which based on a desktop review had the potential for views of the proposed turbines, had complete intervening screening or were screened to such an extent that the completion of photomontages was not considered useful in terms of the assessment process i.e., little or no visibility towards the proposed turbines.

*Viewpoint 16 – A Rendered Wireline of the landscape view from atop the Hill of Uisneach

As detailed in Section 12.1.6, no access was permitted to the Hill of Uisneach for the capture and production of photomontages. In order to complete a robust Landscape and Visual Impact Assessment from this important receptor, MKO have produced a Rendered Wireline. Details on the production of this Rendered Wireline is included in Section 1.4.2.2 of Appendix 12-1, as well as Section 1.1 of Appendix 12-3 where visual effects arising from this viewpoint have been assessed. The likely visual effects arising from the Hill of Uisneach are discussed later in this section of the Chapter.

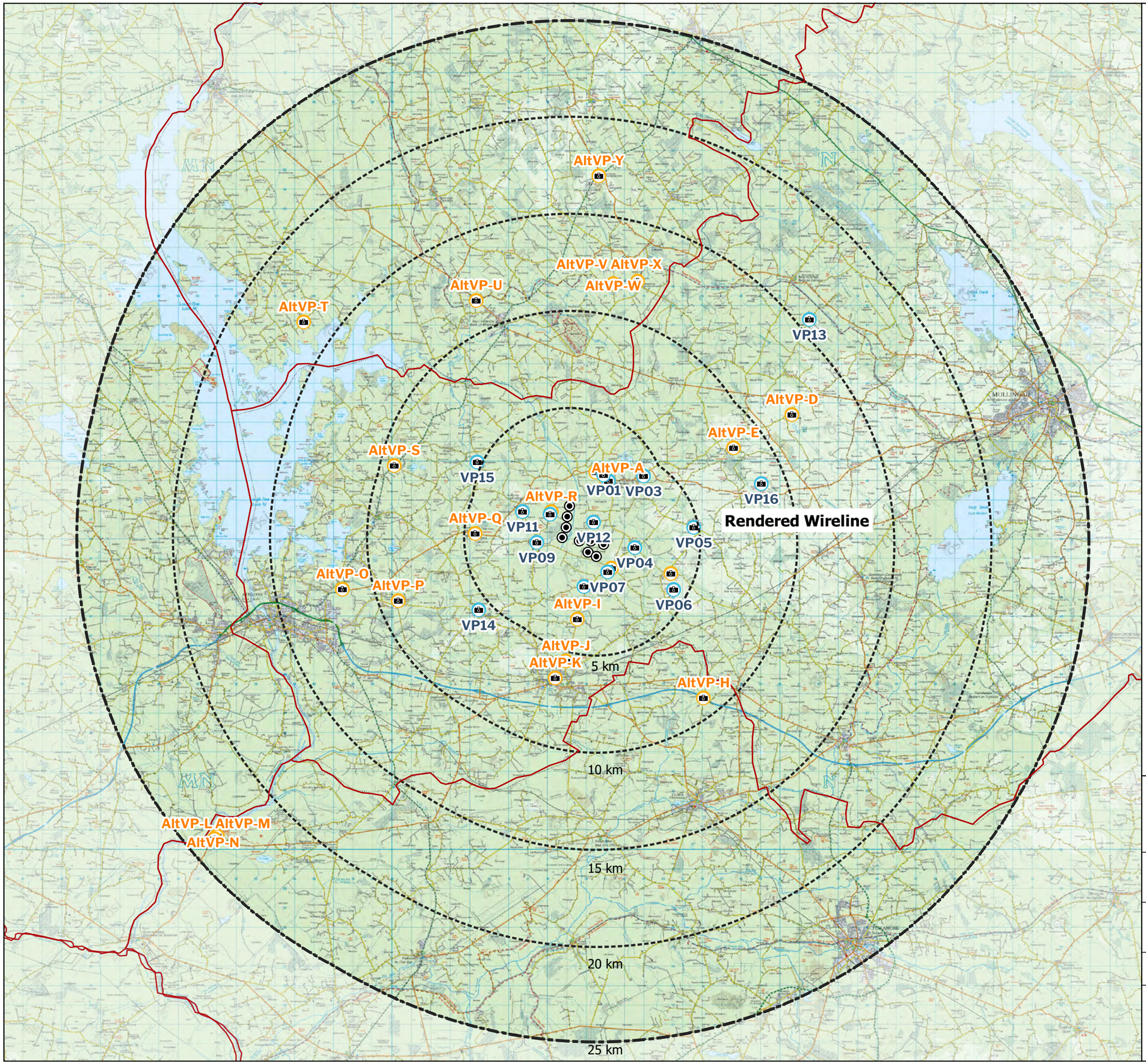
Close Proximity of Viewpoints to The Wind Farm Site

The Wind Farm Site has been strategically sited within a sparsely populated, modified working landscape where there is limited visibility (or large setback distances) from large population centres and designated landscape and visual receptors of high sensitivity. Due to the limited visibility beyond 5km from Wind Farm Site, most of the photomontages included in the EIAR Volume 2: Photomontage Booklet and assessed in Appendix 12-3 include viewpoints located in very close proximity to the proposed turbines where visual effects are likely to be greatest. For instance, 9 No. of the 16 no. Viewpoints are located < 3 km from the closest proposed turbine within the Wind Farm Site (12 No. of the 16 No. VPs are < 5 km from the Wind Farm Site). In this regard, it is important to note that the visual impact of the proposed turbines shown in the photomontages selected for the EIAR Volume 2:

Photomontage Booklet is not entirely representative of visual effects in the wider landscape of 25km LVIA Study Area, where in reality very little visibility occurs.

Alternative Photomontage Viewpoints – Photowires

Photomontage imagery was captured from many locations in the LVIA Study Area other than the 15 No. Photomontage viewpoints that were selected for the EIAR Volume 2: Photomontage Booklet (As detailed above, Viewpoint 16 is not a photomontage). Photowires are early-stage photomontage visualisations comprising panoramic photos with overlaid wirelines (Classified as Type 3 Visualisations in the Landscape Institute Technical Guidance Note, 2019). Photowires were produced from 25 other viewpoint locations in the LVIA Study Area. These viewpoints were not selected for inclusion in the EIAR Volume 2: Photomontage Booklet due to limited visibility of the proposed turbines. These Photowires do not form part of the assessment of visual effects included in Appendix 12-3. However, 25 no. Photowires are presented within Appendix 12-5 and they are discussed later in this section of the Chapter to illustrate certain points. The location of Photowire viewpoints in Appendix 12-5 are marked as orange icons in Figure 12-24 and Figure 12-25, labelled as AltVPs (e.g., AltVP-A to Alt-VPY).



Map Legend

- Proposed Turbines
- LVIA Study Area
- County Borders
- Viewpoint Locations Volume 2 Photomontage Booklet
- Early Stage Photomontages with limited visibility, presented in Appendix 13-5: Photowires - Type 3 Visualisations (LI, 2019)

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Drawing No.

Figure 12-24

Drawing Title

Viewpoint Locations

Project Title

Umma More Renewable Energy Development

Scale	Project	Date	Drawn By	Checked By
1:190,000	201050	30.01.2023	SF	JW

MKO Planning and Environmental Consultants

Map Legend

- Proposed Turbines
- Viewpoint Locations
  Volume 2 Photomontage Booklet
- Early Stage Photomontages with limited visibility, presented in Appendix 13-5: Photowires - Type 3 Visualisations (LI, 2019)

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Drawing No.

Figure 12-25

Drawing Title

Viewpoint Locations within 5km

Project Title

Umma More Renewable Energy Development

Scale	Project	Date	Drawn By	Checked By
1:45,000	201050	03.11.2022	SF	JW

MKO Planning and Environmental Consultants

5 km

12.7.3.2.2 *Summary of Viewpoint Assessment – Appendix 12-3*

Visual effects were assessed using the assessment methodology described in Appendix 12-1. Each viewpoint location is shown in Figure 12-24 and Figure 12-25 above. A comprehensive and detailed assessment of each individual photomontage location is presented in Appendix 12-3 of this EIAR – *Photomontage Assessment Tables*. The determination of visual effects for each viewpoint is included in Appendix 12-3 as well as Table 12-19 below. Appendix 12-3, Table 12-19 and Figure 12-24 (above) should be read in conjunction with the EIAR Volume 2: Photomontage Booklet.

The visual effects of the proposed turbines were assessed from each viewpoint in terms of the sensitivity of the visual receptors, along with the magnitude of change, as recommended in the GLVIA3 (2013) guidelines. This, in conjunction with a detailed review of the photomontages themselves as well as the likely visibility of the proposed turbines within the LVIA Study Area informed the assessment of visual effects.

Visualisations such as photomontages are tools that can represent the likely effect of a development and are used to inform the reader's prediction of how that development will appear in the landscape. In terms of the predicted visual quality of the proposed turbines, however, whether a visual effect is deemed to be positive, negative or neutral, this involves a degree of subjectivity. What appears to be a positive effect to one viewer could be deemed to be a negative effect by another viewer. All predicted visual effects of the viewpoints below are Long Term and Direct effects.

The Photomontage Booklet should be viewed whilst reading **Appendix 12-3.** Each viewpoint is comprehensively assessed in Appendix 12-3 including the potential for cumulative visual effects. Factors which mitigate the visual effects from each viewpoint location are also noted in Appendix 12-3 to give a residual visual effect. The significance of each residual visual effect for each viewpoint is summarised in Table 12-19 below.

Table 12-19 Viewpoint Assessment Summary

VP No.	Description	Grid Ref.	Visual Sensitivity of Receptor(s) (at viewpoint)	Magnitude of Change	Residual Significance of Visual Effect (EPA, 2022)
VP01	View from the R390 regional road in the townland of Ballymore. The viewpoint is located approximately 2.4km northeast of the nearest proposed turbine (T1).	E 620872 N 749309	Medium	Slight	**Slight**
VP02	View from outside the church and graveyard within the village of **Ballymore**. The viewpoint is located approximately 2.3km northeast of the nearest proposed turbine (T1).	E 621,120 N 749,006	Medium	Slight	**Slight**
VP03	View from outside a residential dwelling on the R390 Regional Road, east of Ballymore in the townland **Clonyveey.** The viewpoint is located on the route described for County Westmeath Protected View 8 (WCDP, 2021-2027), approximately 4.1km northeast of the nearest proposed turbine (T7).	E 622931 N 749257	High	Slight	**Slight**
VP04	View from a crossroad in the townland of **Ballinlig Lower.** The viewpoint is located approximately 1.6km east of the nearest proposed turbine (T7).	E 622,483 N 745,569	Medium	Slight	**Slight**
VP05	View from L1240 Local Road (Boher Road) in the townland of **Ballinkeeny**. The viewpoint is located approximately 4.7km east of the nearest proposed turbine (T7).	E 625,518 N 746,610	Low	Slight	**Not significant**
VP06	View from **Knockastia Hill** in the townland of Coolatoor, located approximately 4.2km southeast of the nearest proposed turbine (T7). This viewpoint is located at Westmeath Protected View 9 (WCDP, 2021-2027).	E 624483 N 743404	High	Moderate	**Moderate**

VP No.	Description	Grid Ref.	Visual Sensitivity of Receptor(s) (at viewpoint)	Magnitude of Change	Residual Significance of Visual Effect (EPA, 2022)
VP07	View from a local road **Raheen.** This viewpoint is located approximately 983m south of the nearest proposed turbine (T9)	E 621083 N 744312	High	Moderate	**Moderate**
VP08	View from a community hall in the townland of **Moyvoughly.** The viewpoint is located approximately 1.7km southwest of the nearest proposed turbine (T9).	E 619859 N 743563	Medium	Slight	**Slight**
VP09	View from a local road in the townland of **Lissanode**. The viewpoint is located approximately 1.3km west of the nearest proposed turbine (T4).	E 617434 N 745837	High	Moderate	**Moderate**
VP10	View from a local road between several residential dwellings in the townland of **Baskin High.** This viewpoint is located approximately 891m west of the nearest proposed turbine (T2)	E 618118 N 747284	High	Moderate	**Moderate**
VP11	View from a Local Road outside Drumraney Mixed National School in the townland of **Cartroncoragh**. The viewpoint is located approximately 2.3km west of the nearest proposed turbine (T3).	E 616696 N 747424	Medium	Moderate	**Slight**
VP12	View from a local road in the townland of **Ballynacorra.** The viewpoint is located approximately 991m north of the nearest proposed turbine (T6).	E 620359 N 746880	High	Substantial	**Moderate**
VP13	View from the **Hill of Laragh** at County Westmeath Protected View 20 (WCDP, 2021-2027). Located on the	E 631474 N 757315	High	Negligible	**Not significant**

VP No.	Description	Grid Ref.	Visual Sensitivity of Receptor(s) (at viewpoint)	Magnitude of Change	Residual Significance of Visual Effect (EPA, 2022)
	borders of townlands Laragh, Ballintue and Rathmore, approximately 15.6km northeast of nearest proposed turbine (T1).				
VP14	View from L1437 Local Road, northwest of **Mount Temple** in the townland of Aghanashanamore. The viewpoint is located approximately 5.7km southwest of the nearest proposed turbine (T4).	E 614440 N 742360	Medium	Slight	**Not significant**
VP15	View from atop **Dunamona Motte**, a National Monument in the townland of Dunamona. This viewpoint is located approximately 5.3km northwest of the nearest proposed turbine (T1)	E 614363 N 749972	Medium	Slight	**Not Significant**
VP16	Rendered Wireline of the landscape view atop the **Hill of Uisneach,** representative of Westmeath Protected View 36. The viewpoint is located approximately 8.8km east of the nearest proposed turbine (T7).	E 628998 N 748859	Very High	Slight	**Moderate**

The assessment of visual effects determined the residual significance of the visual effects to range from 'Not Significant' to 'Significant', with the number of findings at each level of significance listed in Table 12-20 below.

Table 12-20 Summary of Viewpoint Impact Assessment Results

Significance of Residual Visual Effect	Description	No. of Viewpoints
Profound	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment	None
Very significant	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment	None
Significant	An effect, which by its character, magnitude, duration or intensity alters a sensitive aspect of the environment	None
Moderate	An effect that alters the character of the environment in a manner consistent with existing and emerging baseline trends	6
Slight	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities	6
Not Significant	An effect which causes noticeable changes in the character of the environment but without significant consequences.	4
Imperceptible	An effect capable of measurement but without significant consequences	None

The significance of the residual visual effect was not considered to be "Profound", "Very Significant" or "Significant" at any of the 16 viewpoint locations. A residual visual effect of "Moderate" was deemed to arise at six of the viewpoint location. All other viewpoints were assessed as resulting in Slight (6) and Not Significant (4) residual visual effects. The viewpoint assessment results (See Appendix 12-3) are summarised and discussed in more detail in the following sections.

12.7.3.2.3 Local Residential Visual Amenity

The Proposed Development design process has been aware of set-back distances, with regard to the siting of turbines in proximity to residential dwellings, the Proposed Development adheres to the recommended 500m set back distance in the Guidelines (DoEHLG, 2006) and also the 4 times tip height set-back distance set out for residential visual amenity prescribed by the draft Guidelines (D0HPLG, 2019).

A large number of viewpoints (9 of the 16) were taken within 3.5km of the Wind Farm Site. As detailed throughout this chapter, the proposed turbines are only likely to be visible from locations in very close proximity to the Wind Farm Site. As shown by the Photowires in Appendix 12-5, 9 no. of 25 no.

Viewpoints captured for production of photomontages showed no visibility or very limited visibility of the proposed turbines. The population of the three No. District Electoral Divisions (DED)s surrounding the Wind Farm Site is detailed in Chapter 5 – *Population and Human Health*. As shown in Table 5-2 in Chapter 5 – *Population and Human Health* of this EIAR, the population density of DEDs, recorded during the 2016 Census was 23.46 persons per km^2. This figure is significantly lower than the national population density of 70.05 persons per km^2 and the Westmeath County population density of 48.23 persons per km^2. These findings indicate that the population of the landscape surrounding the Wind Farm Site has a low population density.

Photomontages are just one of the tools employed during the LVIA that was conducted in order to inform the assessment of landscape and visual effects. It would be a disproportionate measure to include an individual photomontage from every residential dwelling and this is not required to conduct a thorough and robust assessment of landscape and visual effects. In line with the guidance laid out in the GLVIA (2013), the viewpoints selected for the LVIA conducted were informed by a range of factors including the *"ZTV analysis, by fieldwork, and by desk research"* (para 6.18, GLVIA 2013). Furthermore, the GLVIA (2013) states that representative viewpoints are *"selected to represent the experience of different types of visual receptor, where larger numbers of viewpoints cannot all be included individually and where the significant effects are unlikely to differ"* (para 6.19 GLVIA, 2013). It is submitted that the large number of viewpoints used in the conduct of the LVIA particularly in very close proximity to the proposed turbines are sufficient to represent the residential receptors within the LVIA study area, including the *"distribution of population"* (para 6.18, GLVIA 2013).

Four photomontage viewpoints are located within 1.5 km of the proposed turbines. VP07, VP09, VP10 and VP12 were all taken from local roads in townlands adjoining the Wind Farm Site. These viewpoints were specifically selected to assess the visual effects on residential amenity and receptors of local community importance in close proximity to the Wind Farm Site. Visual effects are rated of relatively high significance ('Moderate') from these areas due to the close proximity to the proposed turbines where the magnitude of change is greatest, and the sensitivity is relatively high in respect of residents who live in close proximity. These four viewpoints were strategically selected where there are relatively open views in very close proximity with limited screening. 'Slight' Residual visual effects were recorded for VP04, VP08 and VP11, which are also viewpoints located in very close proximity to the Wind Farm Site (<2km) and are representative of local residential amenity.

The following discussion of effects on residential visual amenity is informed by the seven viewpoints mentioned above, Photowires included in Appendix12-5, the mapping outcome of the Route Screening Analysis and other information gathered during site surveys. The discussion will follow the geography of the Wind Farm Site in a clockwise orientation from the townland of Ballynacorra (VP12, north-east of Wind Farm Site), to the south, then west, north then north-east, where the impact on the village of Ballymore will be discussed.

Map Legend

- Proposed Turbines
- Photomontage Viewpoint Locations
  Volume 2 Photomontage Booklet
- AltVP Locations
  Appendix 13-5

Residential Dwellings within 1.5km of the proposed turbines

- Residential Property - Participating
- Residential Property
- Townlands
- Set Back Distance Compliance
  - 500 metres (DoEHLG, 2006)
- Set Back Distance Compliance
  - 740 metres 4 x tip height (DoHPLG, 2019)

Route Screening Analysis

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

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Drawing No.

Figure 12-26

Drawing Title

Residential Visual Amenity Assessment

Project Title

Umma More Renewable Energy Development

Scale	Project	Date	Drawn By	Checked By
1:18,000	201050	07.10.2022	SF	JW

MKO Planning and Environmental Consultants

Residential Receptors to the East of the Wind Farm Site

Viewpoint 12: Assessed the visual effects from the townland of Ballynacorra. Due to the open views from a slightly elevated location in close proximity to the Wind Farm Site (<1 km to the nearest turbine) this viewpoint represents the most open view in this cul de sac. For effects on residential visual amenity a relatively large horizontal extent of turbines is visible to both the west and south (shown in both an 12A view and 12B view), a substantial change will occur for these locally sensitive receptors. However, this will be the only location where there are such open views towards the turbines and these views will not be afforded to most receptors in this area. Visual effects are mitigated by strategic siting, appropriate scaling and the undulating, open and simple character of the landscape. The turbines are sited at a relatively lower base elevation than the viewpoint and the residential receptors represented by this viewpoint. This provides a sense that the turbines are set-back in relation to the viewpoint, reducing visual prominence. Residual visual effects are deemed to be 'Moderate'.

The slightly elevated landform at Viewpoint 12 (north of TurbineT6) permits the most open views of the Wind Farm Site within 3km. As seen in Plate 12-20 below, many residential properties in this area (road east of this viewpoint 12) have mature boundary vegetation surrounding their properties, which will reduce visibility of the proposed turbines and effects on residential visual amenity. Site visits determined, there will be limited visibility of the proposed turbines from residential receptors located beyond the ridgeline to the northeast of Viewpoint 12 in the townlands of Mullenmeehan, Snimnagorta, Glebe and Clonybane. Localised landform undulations in combination with dense vegetation are likely to substantially screen most of the proposed turbines. 'Moderate' residual visual effects will occur from only a small number of residential receptors located on the southern aspect of the ridgeline (A rise marked 'Barrow' on OSi Maps) to the north of T6 and T7 to the east and west of Viewpoint 12.

Plate 12-20 Residential receptors on the Local Road to the east of Viewpoint 12

The photomontage from Viewpoint 04 (located east of the proposed turbines) shows a 'Slight' visual impact from residences at the Ballinlig Lower crossroad where the landform provides relatively substantial screening of the proposed turbines.

Residential Receptors to the South of the Wind Farm Site

Viewpoint 07: Moderate residual visual effects were recorded from this viewpoint, due to the Moderate magnitude of change and sensitivity of residential receptors which are located <1km from the nearest

proposed turbine. This viewpoint is representative of residential amenity in areas immediately south-east of the Wind Farm Site. The proposed turbines are sited at a lower base elevation than this viewpoint and elsewhere in this local area. Landscape elements such as local landform undulations and mature vegetation accentuate the effect of screening, causing a disproportionate screening effect which reduces visibility of the proposed turbines in the landscape. Topography and vegetation partially obscure most of the proposed turbines from view at this viewpoint.

A cluster of residential dwellings are located at the crossroad in the townland of Raheen, approximately 350 metres north-east of Viewpoint 07. These residential receptors will have limited visibility of the proposed turbines as shown in the Photowire visual AltVP-G in Figure 12-27 (presented at larger size in Appendix 12-5) where only turbine blade tips are visible beyond the vegetation.

Figure 12-27 Photowire from AltVP-G Residential receptors aligned along the Crossroad at Raheen.

Viewpoint 08 was captured from a small settlement cluster of Moyvoughly approximately 1.7km south of the Wind Farm Site. Residual visual effects were deemed to be 'Slight' from this viewpoint. Three dwellings are located on the local road demarking the southern boundary of the Wind Farm Site between VP07 and VP09, these dwellings are marked on the Figure 12-26 above, as well as the outcome of the Route Screening Analysis (see Section 12.3.4). The map shows dense screening between these properties and the Wind Farm Site and visual effects on these receptors will be somewhat limited.

Plate 12-21 View West along the local road demarking the south of the Wind Farm Site, dense roadside screening is shown to the right of the road in the direction of the Wind Farm Site.

Residential Receptors to the West of the Wind Farm Site

Viewpoint 09: VP 09 presents a slightly elevated and open view towards the Wind Farm Site from the south-west. All turbines of the Proposed Development are visible from this location. 'Moderate' residual visual effects were recorded from this viewpoint. This is one of the most open views towards the proposed turbines within 3km of the Wind Farm Site. From this perspective, the proposed turbines are relatively even spaced and an ordered in arrangement within the small river valley causing them to read coherently in the landscape.

Viewpoint 10: 'Moderate' residual visual effects were recorded from this viewpoint. A moderate magnitude of change was determined as there are relatively open views of the proposed turbines and the turbines are quite prominent as this viewpoint is located in close proximity to the Wind Farm Site (< 900m to the nearest proposed turbine). The viewpoint is given a high sensitivity on account of locally residential receptors. It is to be noted that the residence visible in the periphery of the photomontage visuals for VP10 is oriented so that its primary scenic amenity is directed away from the Wind Farm Site and only the short gable end of the dwelling faces the proposed turbines. The photomontage visual shows that mature vegetation delineates field boundaries in this area. The proposed turbines are likely to be partially obscured from other residential receptors and views in this area, as seen in AltVP-R below, which was captured near other residences on the local road to the north of VP10, before the proposed Wind Farm Site entrance.

VP10 and AltVP-R were captured from the local road that runs parallel with the western boundary of the Wind Farm Site. This road is oriented south-north, traversing uphill from VP10 towards the R390 Regional Road. As indicated by the Route Screening Analysis (and AltVP-R), there are limited locations along this local road where there are open views (Class 1 No Screening) of the proposed turbines such as that shown in Viewpoint 10. Residential receptors in the townland of Baskin Low are located beyond the brow of the hill at the northern extent of this local road and will have very limited visibility of the proposed turbines as views will be obscured by the elevated landform to the south-east.

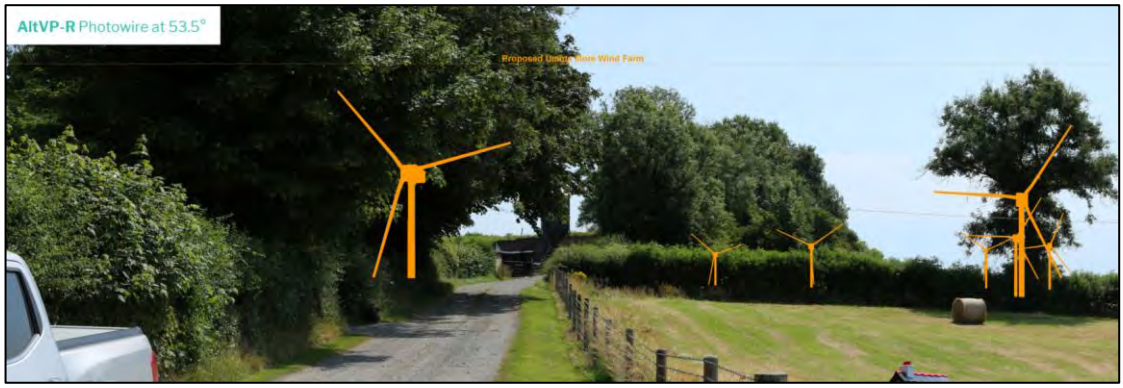

Figure 12-28 Photowire from AltVP-R, View from Residential receptors along the local road at the north-west of the Wind Farm Site, in proximity to the Wind Farm Site entrance.

The photomontage in Viewpoint 11 was captured from Drumraney Mixed National School in the townland of Cartroncoragh. This viewpoint is of a similar orientation to the photomontage presented in Viewpoint 10, however, it is set back approximately 2.3km form the nearest proposed where visual effects are somewhat mitigated by distance. Also, siting of the turbines at a slightly lower base elevation than this viewpoint causes landscape elements such as vegetation to accentuate the effect of screening, causing a disproportionate screening effect which reduces visibility of the proposed turbines in the landscape. Visual effects from receptors in this area are deemed to be 'Slight'.

Residential Receptors to the North of the Wind Farm Site and the Village of Ballymore

As shown in Figure 12-26 previously, the lands north of turbine T1 are very sparsely populated and there are very few residential receptors in the townland of Baskin Low which will have open visibility of

the proposed turbines, this townland is located south of the R390 Regional Road and west of the Dungolman River. In reality, the visual impact of the proposed turbines on residential receptors along the regional road will be limited due to the absence of visibility, particularly to the west of the Dungolman River. Photomontage imagery was captured from multiple locations along this regional road focussing on the area to the northeast where the route screening analysis indicates 'no screening'. Viewpoint 01 was deemed to have a 'Slight' visual impact. Figure 12-29 below shows a photowire produced from the R390 Regional Road approximately 415m west of Viewpoint 01, this was not included in the photomontage booklet due to partial screening from the hedge comprising the roadside verge. AltVP-C within Appendix 12-5 displays the 120° and 53° views from this location.

Figure 12-29 AltVP-C located approximately 415metres west of Viewpoint 01

The Village of Ballymore is the closest settlement to the Wind Farm Site (2.8km north-east of the nearest turbine). Views towards the Wind Farm Site are limited due to screening from the townscape of the village itself. Viewpoint 02 shows the view from outside the church and graveyard in Ballymore, residual visual effects were deemed to be Not Significant. The rest of the village has very limited views towards the proposed turbines due to the infrastructure and tree lines along the road, providing screening. Photowires AltVP-A and AltVP-B (see larger versions in Appendix 12-5) show views towards the Wind Farm Site from the R390 Regional Road as it enters Ballymore from the north and west. Both images show that some of the proposed turbines are likely to be visible in the background of the landscape views above screening in the intervening landscape.

Figure 12-30 Photowire AltVP-A captured from a bend in the R390 Regional Road, as it turns south towards Ballymore Village (Imagery include din Appendix 12-5)

Figure 12-31 Photowire AltVP-B captured from the R390 Regional Road as it approaches Ballymore Village form the north and west (Imagery include din Appendix 12-5)

12.7.3.2.4 *Visual Effects on visual receptors in County Westmeath*

Co. Westmeath Designated Protected Views

Viewpoint 16 - Hill of Uisneach

No access was permitted to the Hill of Uisneach for the capture and production of photomontages. The landowner formally notified the authors of this LVIA that no imagery was to be captured for the production of photomontages from the Hill. In respect of privacy and consideration of GDPR, correspondence relating to this notification between the landowner and MKO has not been included in this EIAR, however, this can be provided to the planning authority & An Bord Pleanála upon request.

In order to complete a robust Landscape and Visual Impact Assessment from this important receptor, and respecting the wishes of the landowners, MKO has produced a 'Rendered Wireline' included in the EIAR Volume 2: Photomontage Booklet as Viewpoint 16. The Rendered Wireline is a simplistic graphic of the landscape view from the Hill of Uisneach. It was compiled using a scaled wireline model generated from co-ordinates mapped at the peak of the Hill. The discussion below (and in the Visual Impact Assessment table in Appendix 12-3) were informed by viewing the Rendered Wireline in combination with online imagery in the public domain showing open landscape views towards the Wind Farm Site, such as the image below (E.g. See Google Street View Imagery in the image below and online - Here (https://www.google.ie/maps/@53.4889486,-7.563041,2a,90y,249.17h,84.51t/data=!3m6!1e1!3m4!1sa-GWYEh_z34MSp_JXjOGXg!2e0!7i13312!8i6656).

Figure 12-32 Google Street View Image showing a view towards the Wind Farm Site from the Hill of Uisneach @Copyright Google with wireline of the Proposed Turbines below (matching the approximate included viewing angle of the Google Street View Image for context).

It is highly likely that the constituent elements of the landscape view visible from the Hill of Uisneach will be of a similar nature to the open views over rolling vegetated farmland as presented in VP13 (and AltVP D in Appendix 12-5), therefore descriptions of the baseline landscape in Appendix 12-3 were also influenced by the photographic imagery of the 'Existing View' presented for this viewpoint (as well as imagery shown in Google Street View). In the context of the photomontage booklet (views presented at 90º and 53.5º), the Rendered Wireline enables a visual impact assessment to be conducted that addresses the scale, form and arrangement of the proposed turbines within views from the Hill. The scaling and modelling of turbines in the Rendered Wireline is consistent with all other photomontages, ultimately enabling a robust visual impact assessment.

Viewpoint 16 has been given a Very High sensitivity rating on account of its location at a protected monument of National importance, within an LCA of Very High sensitivity, and also the panoramic views from the top of the Hill which are protected in the WCDP. All turbines of the Proposed Development are likely to be visible from the top of the Hill of Uisneach where open views are permitted to the west. As shown by the Rendered Wireline, the proposed turbines appear as a neat linear array across the background of the view. At a distance of approximately 8.8km to the nearest proposed turbine (T7), they are seen as small background features and comprise a small horizontal extent in the panoramic landscape view and the magnitude of change was deemed to be 'Slight'.

Residual visual effects were deemed to be 'Moderate' from Viewpoint 16. The proposed turbines are viewed as a neat, compact and coherent development within an otherwise expansive panoramic view, and as detailed previously in Section 12.7.3.1.2 there is a substantial landscape buffer between the Hill of Uisneach and the Wind Farm Site.

Figure 12-33 shows the theoretical visibility of the proposed turbines in and around the Hill of Uisneach. There is full theoretical visibility at the south and western extent of the Hill and the summit, and areas of no theoretical visibility and partial theoretical visibility to the north and east of the Hill of Uisneach site.

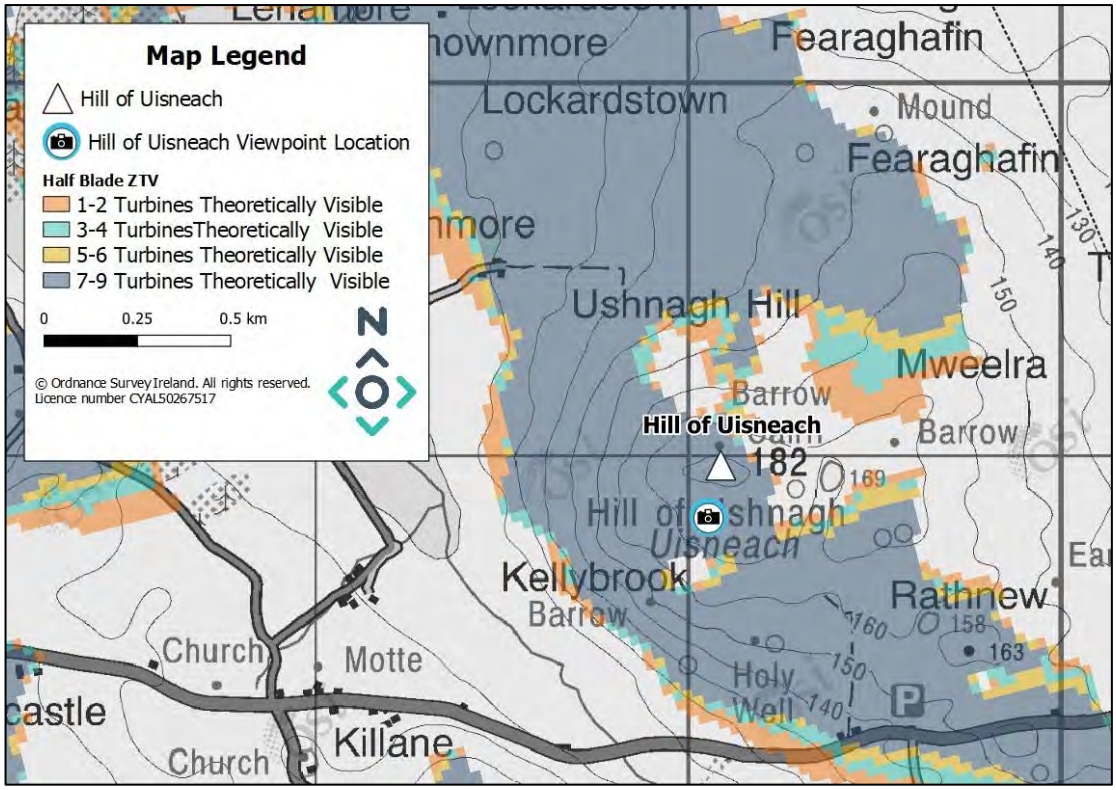

Figure 12-33 Zone of Theoretical Visibility at the Hill of Uisneach.

As indicated by aerial satellite imagery and Google Street View, the landscape of the Hill comprises undulating fields delineated by mature treelines and shrubs which are likely to obscure views to the west from many areas of the Hill. Suggesting that actual visibility of the Wind Farm Site is likely to be far less than is indicated by the ZTV. There will be very limited visibility of the proposed turbines from many of the monuments to the north-east of the Hill of Uisneach site as indicated by the ZTV, but intermittent visibility is anticipated upon the western and southern aspect of the Hill.

The Cat Stone is a feature of cultural heritage significance on the Hill of Uisneach and falls within an area of full theoretical visibility. Figure 12-34 shows a Google Street View Image showing a view towards the Wind Farm Site from the Cat Stone. A scaled wireline image is shown below the Google Street View Image indicating the location, scale and form of the proposed turbines from the Cat Stone. The proposed turbines will be visible from this location, they will be partially screened by the intervening ridgeline (and treeline upon the horizon) visible in the background of the image.

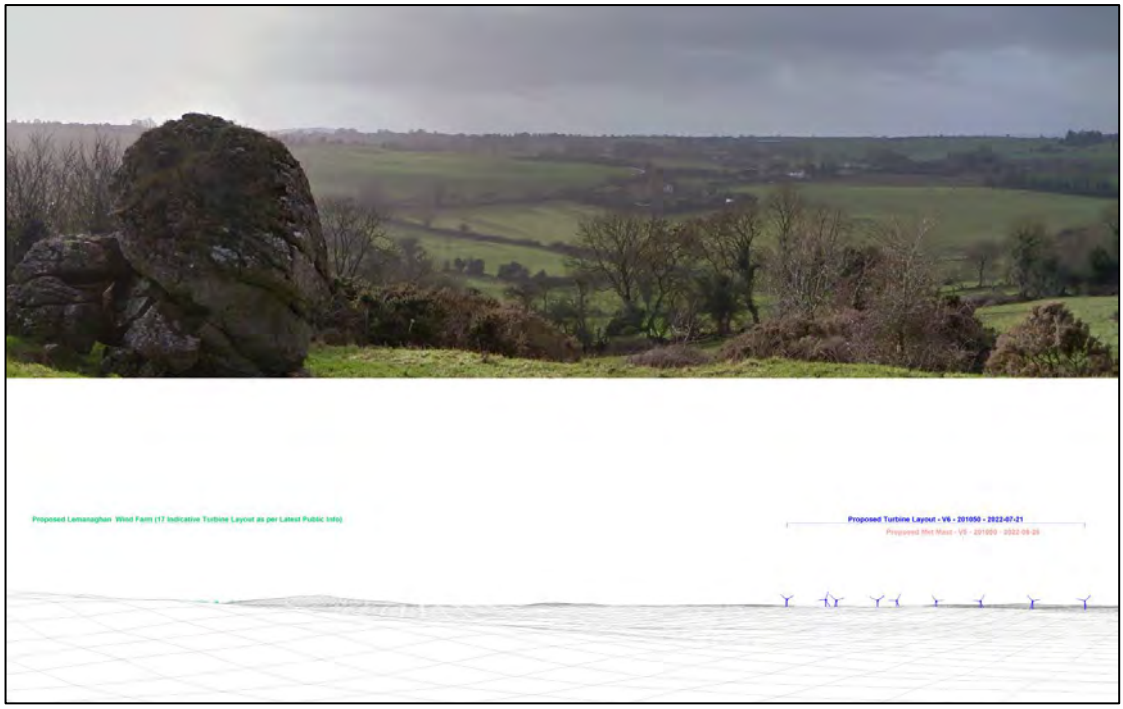

Figure 12-34 Google Street View Image showing a view towards the Wind Farm Site from the Cat Stone at the Hill of Uisneach @Copyright Google. A scaled wireline image is shown below the Google image.

The impact of the Proposed Development on the setting of Cultural Heritage features at the Hill of Uisneach is reported in Chapter 13 – *Cultural Heritage*.

Imagery was captured from elevated lands to the north of the Hill of Uisneach - See Photowires AltVP-D & AltVP-E in Appendix 12-5. Photowires AltVP-D and AltVP-E were captured from areas of high elevation within 5km from the Hill of Uisneach. AltVP-E, located 2.3km north of the Hill of Uisneach, shows no visibility of the proposed turbines from this elevation. AltVP-D was captured from a higher elevation, 3.9km northeast of the Hill of Uisneach. From this view, the turbines appear as a neat linear feature in the background of the view. The towers of the turbines are screened by existing vegetation. These Photowires were considered to be unrepresentative of visibility from the peak elevations of the Hill of Uisneach. Therefore, the Rendered Wireline was included in the EIAR Volume 2: Photomontage Booklet and was used for the full assessment of visual effects included in Appendix 12-3.

Knockastia

Viewpoint 06 is designated as a view of local importance in the WCDP and consequently a viewpoint of High sensitivity. This viewpoint is one of the most elevated locations in close proximity (within 5km) to the Wind Farm Site and represents one of the most open views of all the proposed turbines. The magnitude of change was deemed 'Moderate' as the proposed turbines are visible within the panoramic view. The residual visual effects were deemed to be 'Moderate' from this viewpoint, as the proposed turbines read coherently and are effectively absorbed in the expansive and long ranging landscape view.

Westmeath Protected View 8 – R390 Regional Road east of Ballymore

Westmeath Scenic View 8 is a panoramic view of local significance, located northeast of Ballymore. In the Westmeath County Development Plan the view is described *"to begin from the point where the road begins to descend (622956,749272), ending when it enters Ballymore"*. Viewpoint 03 was taken east of Ballymore along the Regional Road – R390. The view is focused *"on the landscape around Ballymore to the West and North and captures small glimpses of Lough Sewdy"*. 5 of the proposed turbines are visible from within this view to the west along the Regional Road. This viewpoint was deemed to have a 'Slight' residual visual effect as the proposed turbines are visible but do not obstruct any landscape features of unique aesthetic quality or features such as Lough Sewdy referenced in the designated scenic view.

Hill of Laragh

The Hill of Laragh (Viewpoint 13) is designated as a panoramic view of Local significance (Westmeath Protected View 20, WCDP 2022-28). All of the proposed turbines are visible as very small features in the background of the view. The residual visual effects on this view were deemed to be Not Significant as effects are mitigated by screening and distance. The proposed turbines are appropriately scaled in the landscape and the turbines comprise a very small spatial extent within this expansive panoramic view.

Greenway and Old Rail Trail

As seen on Figure 12-35 below, the Old Rail Trail Designated Scenic Route and Greenway is situated at a similar elevation to that of the Wind Farm Site. The trail is also located behind a number of areas of higher elevation such as Knockastia and Knockdomy. Due to the intervening topography between the Wind Farm Site and the trail, there will be limited views of the proposed turbines from the Designated Scenic Route and Greenway. Plate 12-22 below shows a section of the Old Rail Trail and Greenway through Moate. There is vegetation on both sides of the trail that provides screening towards the Wind Farm Site. Photowire AltVP-J (See Appendix 12-5) was captured from the Ballymore Road north of Moate and this recreational route and shows the proposed turbines will not be visible. No visual effects are likely to occur along much of this route, is visibility does occur from any locations not assessed, visual effects are not likely to be significant.

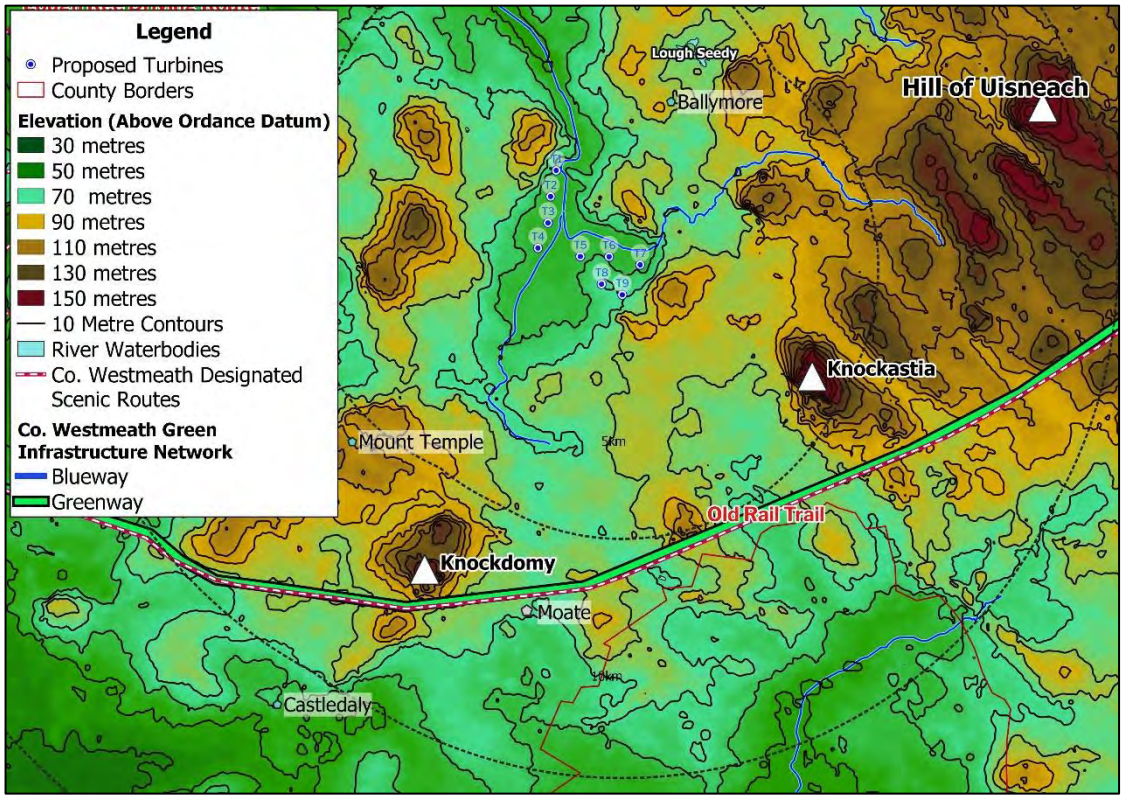

Figure 12-35 Topography and Landform of the Old Rail Trail Designated Scenic Route and Greenway

Plate 12-22 Old Rail Trail Greenway

Lough Ree Designated Scenic Route and N55

AltVP-O and AltVP-S show views towards the Wind Farm Site from the Lough Ree Driving Route. The views along this designated scenic route are directed towards Lough Ree. There are limited views of the proposed turbines from these locations due to the screening from vegetation along the roadside in the direction of the Wind Farm Site. No significant visual effects are likely to occur from receptors on this route.

Settlements in Co. Westmeath

Moate

The intervening landscape between the Wind Farm Site and Moate is very flat. AltVP-I and AltVP-J show views from a local road north of Moate towards the proposed turbines. Both views show that there is substantial screening from vegetation along the road and that there are very limited views of the proposed turbines from the south in this flat landscape. From site visits it is apparent that there are no views from Moate as the screening from residential dwellings and infrastructure limits views. As seen in AltVP-K and in Figure 12-36 below there are several treelines between Moate and the proposed turbines, these will provide screening and reduce the visibility of the proposed turbines. No significant visual effects will occur from the town of Moate.

Figure 12-36 Photowire (AltVP-K) a view from Moates Old Train Station across the Golf Club in the direction of the Wind Farm Site

Mount Temple

Viewpoint 14 within the EIAR Volume 2: Photomontage Booklet shows a view towards the proposed turbines from the L1473 Local Road north of the centre of Mount Temple. This viewpoint has been given a Medium sensitivity rating on account of its proximity to residential receptors in the area. From site visits it appears that this location is one of the only views towards the proposed turbines due to the screening from infrastructure and topography from within the rural settlement cluster. As seen in viewpoint 14, there are dense treelines upon a ridgeline to the right of the image that provides screening from within Mount Temple. A Slight change will occur for these locally sensitive receptors and residual visual effects were deemed to be Not Significant.

12.7.3.2.5 *Visual Effects on Visual Receptors in County Longford*

Lough Ree and Longford Designated Scenic Routes

Longford Designated Scenic Routes I15, I16, I17, F20, F21 and F22 are all located northeast of the Wind Farm Site around Lough Ree. Plate 12-23 below (AltVP-T within Appendix 12-5), shows a view from Longford Scenic Route F21 across Lough Ree towards the Wind Farm Site, one of the only Co. Longford designated scenic routes where the proposed turbines will be visible. The long-ranging view is of a reasonably scenic quality and as this is a designated scenic route it is a receptor of high sensitivity. The nearest proposed turbine is approximately 16.6km from this location. Landform rises on the opposite side of Lough Ree to a dense treeline, this landform and vegetation is likely to partially screen, views of the proposed turbines. The proposed turbines will have a Negligible change to the character of views on this scenic route considering the substantial set back distance from the Wind Farm Site and limited locations where these views are actually available. Visual effects are deemed to be Slight at this location, however, visual effects along the Longford Scenic Routes in this area are deemed Not Significant.

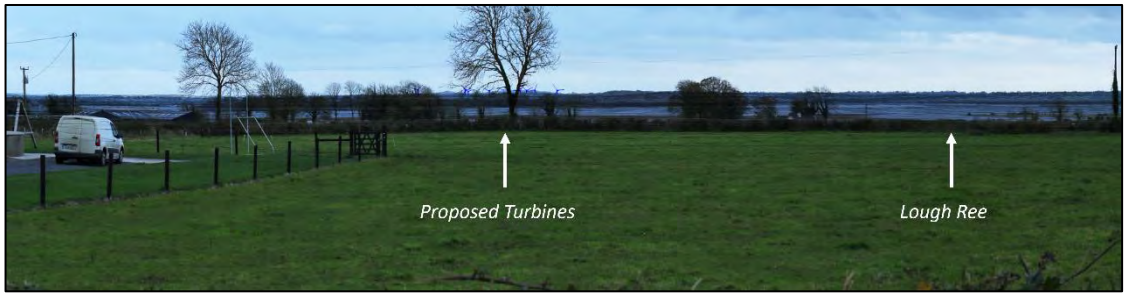

Plate 12-23 Views across Lough Ree towards the proposed turbines from Longford Scenic Route F21

Plate 12-24 View along Longford Designated Scenic Route I16

Several routes are classified as intermittent, Plate 12-24 above shows a view along Longford Scenic Route I16, where dense roadside screening inhibits views in the direction of the proposed turbines.

Plate 12-25 below shows a view from Longford Designated Scenic Route 18 (intermittent views). This Designated Scenic Route is located within Newcastle Wood. There are no views of the proposed turbines from this scenic route as the forestry within Newcastle Wood provides screening towards the Wind Farm Site and no visual effects are expected to occur from this receptor.

Plate 12-25 Longford Designated Scenic Route I18 within Newcastle Wood

Other Sensitive Receptors County Longford

Way Marked River Inny Walking Trail

The Way Marked River Inny Walking Trail is located north of Newcastle House, along the River Inny. The trail is located within Newcastle Wood and there are very little views towards the proposed turbines due to the low elevation of the trail, and screening from the vegetation, as seen in Plate 12-26 below. No visual effects are anticipated form this visual receptor.

Plate 12-26 Way Marked River Inny Walking Trail

Newcastle Wood Way Marked Walking Trail

The Newcastle Wood Way Marked Walking Trail is located within Newcastle Wood and Centre Parcs. Due to the vegetation within the area, as seen in Plate 12-27 below, there are no views towards the proposed turbines along this trail. No visual effects are anticipated form this visual receptor.

Plate 12-27 Way Marked Walking Trail within Newcastle Wood

Abbeyshrule

AltVP-V, AltVP-W and AltVP-X were taken from various areas in proximity to the village of Abbeyshrule. The Photowires were captured from the most elevated vantage points on bridges over the canal, adjacent to the Way Marked Walking Trail along the Royal Canal. The focus of the scenic and recreational amenity within Abbeyshrule is on the Royal Canal, as well as a historic Abbey. Figure 12-37 shows a view towards the proposed turbines from the 53° image within Appendix 12-5, as seen below the turbines are screened from this view by the treeline in the background very flat landscape. All three of the viewpoints (Photowires in Appendix 12-5) show that there is no, or very limited visibility (occasional blade tips may be seen) of the proposed turbines from this location due to the screening within this very flat landscape. No significant visual effects are expected to occur from receptors in the town of Abbeyshrule and along the Royal Canal.

Figure 12-37 Photowire AltVP-V View from the Royal Canal Way

Ballymahon

The town of Ballymahon is sited at a lower elevation than the proposed turbines. AltVP-U shows a view from an elevated vantage point on a bridge to the north of Ballymahon on the R392 as it crosses the Royal Canal and the Way Marked Walking Trail. From this slightly elevated view, on the bridge along the R392, north of Ballymahon there are no views of the proposed turbines due to the screening from vegetation and limited long distance views in such a flat landscape. The infrastructure within the town and the vegetation of the surrounding area, restricts views towards the Wind Farm Site. Due to this screening, there will be limited views of the proposed turbines from this location.

12.7.3.2.6 Visual Effects on Receptors in County Offaly

Clara Bog Area of high amenity

As shown in Plate 12-28 below, the topography from Clara Bog rises towards the Wind Farm Site. The proposed turbines are not visible from this walking trail and viewing area and no visual effects are anticipated form this visual receptor.

Plate 12-28 View from Clara Bog towards the Wind Farm Site

Clonmacnoise

Figure 12-38 below displays a Photowire (larger scale image seen as AltVP-L within Appendix 12-5) from Clonmacnoise in the direction of the Wind Farm Site. As shown in Figure 12-19 previously, the Clonmacnoise monastery ruins are bordered by trees to the north-west, these are visible in Figure 12-38 below. These trees provide screening towards the proposed turbines and reduce the visual impacts on the site. There may be isolated locations within the Clonmacnoise archaeological complex where the proposed turbines might be just visible, however, at a distance greater than 23.4 km, it is unlikely they would be easily identifiable from this low-lying location adjacent to the Shannon River and visual effects are not significant.

Figure 12-38 View from Clonmacnoise towards the proposed turbines (larger scale image seen as AltVP-L within Appendix 12-5)

Pilgrims Road

Offaly Designated Scenic View 3 originates along Pilgrims Road, an elevated esker located to the east of the Clonmacnoise archaeological site. The views are focused towards Clonmacnoise and the River Shannon, Eskers Mogan Bog and Finlough. Plate 12-29 below shows a view along Pilgrims Road in the direction of the Wind Farm Site. As seen below, the road is screened to one side by vegetation, the focus of the views of Offlay Designated Scenic View 3 are south, southeast, and southwest in the other direction, where there is less screening. The proposed turbines are located northeast from this road and views towards the proposed turbines will be screened by the vegetation on the left of the road.

Plate 12-29 View along Pilgrims Road

There may be brief intervals of visibility in the direction of the proposed turbines from elevated points along the Pilgrims Road. Plate 12-30 below shows a view in the direction of the Wind Farm Site from a slightly elevated point along Pilgrims Road. Due to the setback distance and vegetation visible throughout the image it is unlikely that the proposed turbines will be perceptible from this location and any visual effects are not deemed to be significant form this receptor. Once the road begins to descend views will be limited due to the roadside screening and topography.

Plate 12-30 View northeast along Pilgrims Road down an elevated section in the road, the proposed turbines will be screened by the existing topography

12.7.3.2.7 *Visual Effects in County Roscommon*

Following the site visits and surveys carried out in 2021 and 2022, it was determined that there is not likely to be any visibility of the proposed turbines from sensitive visual receptors in County Roscommon and no significant visual effects are likely to arise.

12.7.3.3 Other (non-turbine) Components of the Proposed Development – Landscape and Visual Effects

For the purposes of this LVIA, a number of individual elements of the Proposed Development, ancillary to the proposed wind turbines, have been grouped together for the assessment of effects, given the similar nature of the works required. These operational project elements that are part of the Proposed Development, include the access roads, turbine hardstand areas, met mast and Grid Connection components including the onsite substation and underground electrical cabling route may all give rise to potentially similar landscape and visual effects. Details of these components of the Proposed Development and the required works to construct them are contained in Chapter 4 of this EIAR.

Due to the screening from hedgerows, treelines and undulating landform surrounding the Wind Farm Site, most visibility of the lower (shorter), less visually prominent Proposed Development components will occur in their immediate surroundings; hence, visual effects will be localised and are predominantly confined to within the Wind Farm Site itself.

Proposed Substation

The proposed onsite substation and its compound are one of the larger and more visually prominent elements of the ancillary infrastructure. The footprint of the proposed onsite 110kV substation compound measures approximately 11,100 square metres in area. As shown in previously in Figure 12-13 (Section 12.4 – *Landscape Baseline*) the proposed onsite substation is located in a field to the south of the Wind Farm Site. Plate 12-16 shows that the proposed onsite substation is sited in a location enclosed by vegetation, reducing visibility from receptors in the surrounding landscape to the south, east and west and north. Once established, the proposed treeline planting around the onsite substation will provide screening and mitigate visibility of the onsite substation. Any landscape and visual effects are likely to be highly localised, long-term and will be 'Slight'.

Site Access Roads and Hardstand Areas

The proposed access roads and hardstand areas are flat features. They will be most visible within their immediate surroundings; therefore, any landscape and visual effects will be very localised. Access roads and hardstands around Turbines T6 and T9 will be visible from receptors along the elevated ridgeline north-east of the Wind Farm Site, in proximity to Viewpoint 12. Every use will be made of the existing farm and access tracks on the Wind Farm Site. Some tracks will be upgraded appropriately whilst several stretches of new internal roads will need to be constructed. Landscape and visual effects are likely to be highly localised, long-term and will be 'Slight'.

Meteorological (Met) Mast

One met mast is proposed as a part of the Wind Farm Site. This will be a slender structure, 30 metres in height, and will not be an imposing structure in terms of visual impact. The landscape and visual effects of the proposed met mast will be localised, considering that it will be significantly less visible than any turbine given its shorter and slender lattice form and will fade from view at a distance of anything more than a few kilometres (approx. 2km) where it will have little to no impact. As shown in the EIAR Volume 2: Photomontage Booklet, the met mast is not actually likely to be visible from any of the photomontage viewpoints. Within the Wind Farm Site and its immediate landscape setting, the landscape and visual effects arising from the met mast is considered to be 'Slight'.

Grid Connection Underground Electrical Cabling Route

As the proposed underground electrical cabling route is located underground, landscape and visual effects during the operational phase will be Imperceptible once vegetation has re-established along the roadway following earthworks during the construction phase. The landscape and visual effects occurring during the construction phase of the proposed underground electrical cabling route are reported previously in Section 12.7.2.2. In general, the proposed ancillary infrastructure elements (discussed above) will cause negative landscape and visual effects 'Slight'.

12.7.3.4 Cumulative Visual Effects

No existing or permitted wind farms exist within the LVIA Study Area and no cumulative visual impacts will occur with existing or permitted wind turbines.

In order to consider all likely future scenarios, the proposed Kepak turbine and proposed Lemanaghan and Derryadd wind farms were considered in the cumulative visual impact assessment. Located within the surrounding landscape of the LVIA Study Area. All proposed turbines have a substantial set back distance (> 16 km) from the Wind Farm Site. However, it is noted there is a degree of uncertainty to be considered when determining the potential for these cumulative effects to occur, as at the time this LVIA was conducted, both the proposed Lemanaghan and Derryadd wind farm developments are only proposals at pre-planning stage, and the final proposals may be subject to change.

Combined visibility occurs where an observer is able to see two or more developments from one viewpoint. Successional visibility is when a receptor can view two developments from the same location but within differing arcs or fields of view. As shown in the EIAR Volume 2: Photomontage Booklet, turbines of other proposed wind farm developments are only likely to appear within the same field of view as the Proposed Development turbines from few limited elevated perspectives.

The proposed Derryadd turbines may potentially be viewed in the same 90-degree field of view as the proposed turbines within long-ranging views from locations of high elevation to the southeast of the Wind Farm Site such as Viewpoint 06 – Knockastia. Combined visibility may also potentially occur from this location where Proposed Development turbines and the proposed Lemanaghan turbines would potentially be visible in opposing directions (successional views). The proposed Lemanaghan turbines are also potentially visible in conjunction with the Proposed Development turbines from elevated views on the Hill of Uisneach. There is potential for the proposed Kepak turbine to be visible in succession with the Proposed Development turbines from the Hill of Uisneach (VP16) and Knockastia (VP06). In all instances, there would be a large degree of visual separation between these proposals, and they are small features absorbed within expansive panoramic views. Any potential for cumulative visual effects with these other proposed turbines (Kepak, Lemanaghan and Derryadd) are not likely to be significant.

12.7.4 Decommissioning Phase Effects

The landscape and visual effects during decommissioning are anticipated to be of a similar nature as those occurring during the construction phase.

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

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

Removal of the turbines and ancillary infrastructure from the Wind Farm Site will result in a Short-term, Slight, Negative visual effect. A Decommissioning Plan has been prepared (Appendix 4-6) the detail of which will be agreed with the local authority prior to any decommissioning. The Decommissioning Plan will be updated prior to the end of the operational period in line with decommissioning methodologies that may exist at the time and will be agreed with the competent authority at that time.

12.8 Conclusion

This Chapter assesses the likely significant landscape and visual impacts arising as a result of the Proposed Development. Although all elements of the Proposed Development are assessed, the Chapter focusses upon the proposed turbines, as they are deemed to be the essential aspects of the proposal under assessment from a landscape and visual perspective. The Chapter describes the baseline landscape and assesses the direct effects on the landscape of the Wind Farm Site, as well as effects on landscape character and the impact on sensitive landscape receptors and Landscape Character Areas (LCAs). Visibility of the proposed turbines was assessed from receptors within a study area extending 25km from the proposed turbines; and visual effects were determined from information gathered during multiple site visits as well as other tools such as ZTV mapping and photomontages.

The Wind Farm Site is located in a lowland landscape comprising undulating agricultural land. The immediate setting of the Wind Farm Site is a sparsely populated, working landscape, set back from large settlements and population centres. The proposed infrastructure of the Wind Farm Site was strategically sited in a small river valley where the landform characteristics limit visual exposure in the generally flat lowland landscape of the wider LVIA Study Area. Selection of the Wind Farm Site considered landscape and visual designations in the previous and recently adopted Westmeath County Development Plan(s). The proposed turbines are sited within Westmeath Landscape Character Area 7 (Western Lowlands), this LCA is deemed to be 'Low' sensitivity as there are no High Amenity Areas located within this LCA and does not comprise any unique landscape features of county or national interest. The landscape of this LCA was previously designated as 'Medium' capacity for wind energy within the Draft Westmeath County Development Plan 2021-2027 and in the previous 2014-2020 Westmeath County Development Plan. LCA 7 has historically been the only LCA with any designated capacity for Wind Energy in Co. Westmeath. In the final 2021-2027 Westmeath County Development Plan the area was designated as an area with 'Low' capacity for wind energy, as are all other LCAs in Co. Westmeath. In terms of location, spatial extent, spacing and layout, the siting and design of the Proposed Development adheres to the guidance for the siting of wind farms in Hilly and Flat Farmland Landscape Types, as set out in the Guidelines for Planning Authorities (DoEHLG, 2006).

On-site visibility appraisals, ZTV mapping, a Route Screening Analysis and assessment of over 40 no. viewpoint locations (16 No. in the EIAR Volume 2: Photomontage Booklet and 25 No. in Appendix 12-5) determined that visibility of the proposed turbines will be very limited from locations beyond 5 km from the Wind Farm Site. Siting of the proposed turbines at low base elevation in a small valley bound by localised landform ridgelines largely restricts visual exposure in the wider landscape, which is generally - very flat. Visibility of the proposed turbines beyond the immediate landscape setting of the Wind Farm Site is limited to localised areas of high elevation where open views across the flat and highly vegetated landscape are available from elevated vantage points, which is in general not a common occurrence in the 25km LVIA Study Area.

The landscape value of the Wind Farm Site is deemed to be of 'Low' value and the sensitivity of this landscape to wind farm development is deemed to be 'Low'. The introduction of vertical man-made structures and ancillary infrastructure will substantially alter the landscape comprising the proposed infrastructure footprint at the Wind Farm Site. The proposed turbines amount to direct long-term 'Moderate' landscape effects upon the physical fabric of the landscape of the Wind Farm Site itself. In

terms of effects on Landscape Character, the sensitivity of this landscape, located within Westmeath LCA 7 – Western Lowlands, to this form of development was deemed to be Low. The proposed turbines and other infrastructure will cause a 'Moderate' magnitude of change to result in a 'Slight' residual effect to the LCA. This is the only LCA that will experience direct effects on landscape character as a result of the proposed turbines, direct effects on the LCA will be very localised.

All other LCAs within 15km of the Wind Farm Site were comprehensively assessed in Appendix 12-2. Effects on landscape character from these LCAs only relate to impacts on perceptual and aesthetic qualities. The proposed turbines will not materially alter these landscape receptors and likely effects upon landscape character were not deemed to be significant. Residual effects on landscape character were deemed to be 'Slight' from four other LCAs, and 'Moderate' from the Hill of Uisneach LCA, where turbines are only visible at distance. The proposed turbines are only likely to be visible from within other LCAs from elevated vantage points such as the Hill of Uisneach.

The Hill of Uisneach was identified as a highly sensitive landscape and visual receptor assessed in this Chapter on account of protections in local planning policy and its national cultural heritage value. The nearest proposed turbine is located approximately 8.8 km from the peak of the Hill of Uisneach and 7.7 km from the LCA boundary. There will be no direct effects on the landscape of the Hill of Uisneach and there is a substantial physical buffer between the Hill of Uisneach and the Wind Farm Site. Assessments determined there will be a 'Moderate' residual effect on the landscape character of the hill and the Hill of Uisneach LCA. Residual visual effects on the designated scenic views will be 'Moderate'. The archaeological complex at Clonmacnoise was also identified as a highly sensitive landscape receptor. Assessments determined that No Significant landscape or visual effects will occur from Clonmacnoise.

Photomontages were used to assess the visual effects arising as a result of the Proposed Development from 15 No. viewpoint locations and 1 No. Rendered Wireline from the Hill of Uisneach – Viewpoint 16. The assessment concluded that no 'Profound', 'Very Significant' or 'Significant' effects occurred at any of the 16 viewpoints. Residual effects of 'Moderate' occurred at six of the 16 No. viewpoints. All other viewpoints were assessed as resulting in 'Slight' residual effects (6) or 'Not Significant' (4).

Considering the limited visibility of the proposed turbines from distant receptors, the assessment of visual effects focussed on locally sensitive residential receptors and rural settlement clusters which will have views of the proposed turbines. A large number of viewpoints (9 of the 16) were captured within 3.5km of the Wind Farm Site, four of the nine recorded 'Moderate' residual visual effects within close proximity (3.5km) to the Wind Farm Site where most visibility and substantial change is likely to occur. VP07, VP09, VP10 and VP12 photomontage viewpoints are located within 1.5 km of the proposed turbines and were all taken from local roads in townlands adjoining the Wind Farm Site. These viewpoints were specifically selected to assess the visual effects on residential amenity and receptors of local community importance in close proximity to the Wind Farm Site.

Knockastia is a hill approximately 4.3km southeast of the proposed turbines and is a designated protected view in the Westmeath County Development Plan. Residual visual effects were deemed to be 'Moderate' from Viewpoint 06, which was captured form the peak of Knockastia. Residual visual effects were deemed to be 'Slight' from a location on the R390 Regional Road representing County Westmeath Protected View 28 as represented by photomontage Viewpoint 03. Visual effects were also assessed from designated scenic amenity and highly sensitive receptors in Counties Westmeath, Longford and Offaly. Other sensitivity receptors (Clonmacnoise, Lough Ree and the Royal Canal), were assessed separately above and in such instances, visual effects are significantly mitigated by distance and screening.

The assessments determined that No cumulative landscape and visual effects will occur with any other existing or permitted wind farm development. There is a likelihood that the Proposed Development turbines may potentially be seen in combination or in succession with turbines of the proposed Kepak turbine or the proposed Lemanaghan or Derryadd Wind Farms in a future scenario. However, this is

only likely to occur from very few isolated areas in the Study Area and due primarily to substantial separation distances no significant cumulative landscape and visual effects are likely to occur.

The Proposed Development is suitably sited and scaled within the landscape. Considering the limited visual exposure of the proposed turbines and relatively limited number of sensitive landscape and visual receptors impacted within the LVIA Study Area, the Proposed Development is deemed to be acceptable from a landscape and visual perspective.