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## Introduction

- 10.1 This chapter of the EIAR assesses the impacts of the development on the landscape and visual amenity of the receiving environment. Although closely linked, landscape and visual impacts are assessed separately. Where negative effects are predicted, the chapter identifies appropriate mitigation strategies therein. The assessment will consider the potential effects during the following phases of the Development:
- Construction of the Development
  - Operation of the Development
  - Decommissioning of the Development (final phase)
- 10.2 The Proposed Development refers to all elements of the application for the construction, operation and decommissioning of the Knockanarragh Wind Farm (**Chapter 2**).
- 10.3 Common acronyms used throughout this EIAR can be found in **Chapter 1 and 2**.
- 10.4 This chapter of the EIAR is supported by a portfolio of photomontages included in Volume 4: Book 1 (VP1-VP16), Book 2 (VP17-VP35) and Book 3 are provided as a separate booklet and the following Appendix document provided in Volume 3 of this EIAR:
- **Appendix 10.1: Visual Impact Assessments at VPs**
- 10.5 **Landscape Impact Assessment (LIA)** relates to changes in the physical landscape brought about by the Proposed Development, which may alter its character, and how this is experienced. This requires a detailed analysis of the individual elements and characteristics of a landscape that go together to make up the overall landscape character of that area. By understanding the aspects that contribute to landscape character, it is possible to make judgements in relation to its quality (integrity) and to identify key sensitivities. This, in turn, provides a measure of the ability of the landscape in question to accommodate the type and scale of change associated with the Proposed Development without causing unacceptable adverse changes to its character.
- 10.6 **Visual Impact Assessment (VIA)** relates to assessing effects on specific views and on the general visual amenity experienced by people. This deals with how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements. Visual impacts may occur from: visual obstruction (blocking of a view, be it full, partial or intermittent) or Visual Intrusion (interruption of a view without blocking).
- 10.7 **Cumulative landscape and visual impact assessment** is concerned with additional changes to the landscape or visual amenity caused by the Proposed Development in conjunction with other developments (associated or separate to it), or actions that occurred in the past, present or are likely to occur in the foreseeable future.

## Assessment Structure

- 10.8 In line with the Landscape Institute and the Institute of Environmental Management and Assessment publication entitled Guidelines for Landscape and Visual Impact Assessment – Third Addition (2013) the structure of this chapter will consist of separate considerations of landscape effects and visual effects in the following order:
- Assessment of landscape value and sensitivity

- Assessment of the magnitude of landscape effects within the Study Area; (comprised of the 'Central Study Area' (within c. 5km of the Proposed Development Site) and 'Wider Study Area' (5-20km from the Proposed Development Site))
- Assessment of the significance of landscape impacts
- Assessment of visual receptor sensitivity
- Assessment of visual impact magnitude at representative viewpoint locations (using photomontages)
- Assessment of visual impact significance
- Assessment of cumulative landscape and visual impacts.

## Statement of Authority

10.9 This Landscape and Visual Impact Assessment was prepared by Richard Barker, Principal Landscape Architect (BA Env. PGDip Forestry. MLA. MILI) and Jordan Derecourt – Landscape Architect (BLA. MLA. MILI), at Macro Works Ltd (part of APEM Group), a specialist LVIA company with over 20 years of experience in the appraisal of effects from a variety of energy, infrastructure and commercial developments. Relevant experience includes LVIA work on over 140 on-shore wind farm proposals throughout Ireland, including six Strategic Infrastructure Development (SID) wind farms. Macro Works and its senior staff members are affiliated with the Irish Landscape Institute, both authors are full professional members of the ILI.

## Description of the Proposed Development

10.10 A wind farm consisting of eight turbines, in two clusters, arranged generally north to south. The northern cluster features three turbines and will be referred to as the 'Northern Cluster, and the Southern Cluster (as it will be referred to) features the remaining five, in a staggered arrangement. There will also be a 110kV substation included within this application, which is located to the north of the proposed Wind Farm, on the outskirts of Clonmellon. For the full description of the development, refer to **Chapter 2**.

## Assessment Methodology

10.11 Production of this Landscape and Visual Impact Assessment (LVIA) involved baseline work in the form of desktop studies and fieldwork comprising professional evaluation by qualified and experienced Landscape Architects. This entailed the following:

### Desktop Study

- Establishing an appropriate Study Area from which to study the landscape and visual impacts of the Development.
- Review of a Zone of Theoretical Visibility (ZTV) map, which indicates areas from which the Development is potentially visible in relation to terrain within the Study Area.
- Review of relevant County Development Plans, particularly with regard to sensitive landscape and scenic view/route designations.
- Selection of potential Viewshed Reference Points (VRPs) from key visual receptors to be investigated during fieldwork for actual visibility and sensitivity.

## Fieldwork

- Recording of a description of the landscape elements and characteristics within the Study Area.
- Selection of a refined set of VRP's for assessment. This includes the capture of reference images and grid reference coordinates for each VRP location for the visualisation specialist to prepare photomontages.

## Appraisal

- 10.12 Consideration of the receiving landscape with regard to overall landscape character as well as the salient features of the Study Area including landform, drainage, vegetation, land use and landscape designations.
- Consideration of the visual environment including receptor locations such as centres of population and houses, transport routes, public amenities and facilities and designated and recognised views of scenic value.
  - Consideration of design guidance and planning policies.
  - Consideration of potentially significant construction stage and operational stage effects and the mitigation measures that could be employed to reduce such effects.
  - Estimation of the significance of residual landscape impacts.
  - Estimation of the significance of residual visual impacts aided by photomontages prepared at all of the selected VRP locations.
  - Estimation of cumulative landscape and visual effects in combination with other surrounding developments that are either existing, permitted or proposed.

## Relevant Legislation and Guidance

- 10.13 This LVIA uses methodology as prescribed in the following guidance documents:
- Environmental Protection Agency (EPA) publication 'Guidelines on the Information to be contained in Environmental Impact Statements (2022) and the accompanying Advice Notes on Current Practice in the Preparation of Environmental Impact Statements (2003).
  - Landscape Institute and the Institute of Environmental Management and Assessment publication entitled Guidelines for Landscape and Visual Impact Assessment – Third Edition (2013).
  - Scottish Natural Heritage (SNH) Guidance Note: Cumulative Effect of Windfarms (2012).
  - Department of the Environment, Heritage and Local Government Wind Energy Development Guidelines (2006 - current) and Wind Energy Development Guidelines (2019 - draft revised)
  - Scottish Natural Heritage (SNH) Visual representation of wind farms: Best Practice Guidelines (version 2.2 - 2017).

## Definition of Study Area

- 10.14 The Wind Energy Development Guidelines published by the Department of the Environment, Heritage and Local Government (2006 and 2019 draft revision) both versions

specify the same radii for examining the zone of theoretical visibility of proposed wind farm projects (ZTV). The extent of this search area is influenced by turbine height, as follows:

- 15km radius for blade tips up to 100m
- 20km radius for blade tips greater than 100m
- 25km radius where landscapes of national and international importance exist.

10.15 In the case of the Proposed Development, the blade tips are up to 185m high and, thus, the minimum ZTV radius recommended is 20km from the outermost turbines. There are not considered to be any sites of national or international importance between 20 – 25km and thus, the radius of the study area will remain at 20km. Notwithstanding the full 20km extent of the LVIA study area, there will be a particular focus on receptors and effects within the Central Study Area where there is higher potential for significant impacts to occur. When referenced within this assessment, the ‘Central Study Area’ is the landscape within c. 5km of the Site.

## Computer Generated Images, Photomontages and Wireframes

10.16 This LVIA is supported by a variety of computer-generated maps and graphics as well as verifiable photomontages that depict the Proposed Development within the views from a range of represented visual receptor locations. These maps, graphics and visualisations consist of the following:

- Zone of Theoretical Visibility (ZTV) maps.
- Photomontages consisting of existing views, wireframe views and proposed views.

## Assessment Criteria for Landscape Effect

10.17 The sensitivity of the landscape to change is the degree to which a particular landscape receptor (Landscape Character Area (LCA) or feature) can accommodate changes or new features without unacceptable detrimental effects to its essential characteristics. Landscape Value and Sensitivity is classified using the following criteria.

**Table 10-1: Landscape Value and Sensitivity**

Sensitivity	Description
Very High	Areas where the landscape character exhibits a very low capacity for change in the form of development. Examples of which are high value landscapes, protected at an international or national level (World Heritage Site/National Park), where the principal management objectives are likely to be protection of the existing character.
High	Areas where the landscape character exhibits a low capacity for change in the form of development. Examples of which are high value landscapes, protected at a national or regional level (Area of Outstanding Natural Beauty), where the principal management objectives are likely to be considered conservation of the existing character.
Medium	Areas where the landscape character exhibits some capacity and scope for development. Examples of which are landscapes which have a designation of protection at a county level or at non-designated local level where there is evidence of local value and use.



Sensitivity	Description
Low	Areas where the landscape character exhibits a higher capacity for change from development. Typically, this would include lower value, non-designated landscapes that may also have some elements or features of recognisable quality, where landscape management objectives include, enhancement, repair and restoration.
Negligible	Areas of landscape character that include derelict, mining, industrial land or are part of the urban fringe where there would be a reasonable capacity to embrace change or the capacity to include the development proposals. Management objectives in such areas could be focused on change, creation of landscape improvements and/or restoration to realise a higher landscape value.

10.18 The magnitude of a predicted landscape impact is a product of the scale, extent or degree of change that is likely to be experienced as a result of the Proposed Development. The magnitude takes into account whether there is a direct physical impact resulting from the loss of landscape components and/or a change that extends beyond the Proposed Development Site Boundary that may have an effect on the landscape character of the area.

**Table 10-2: Magnitude of Landscape Impacts**

Magnitude of Impact	Description
Very High	Change that would be large in extent and scale with the loss of critically important landscape elements and features, that may also involve the introduction of new uncharacteristic elements or features that contribute to an overall change of the landscape in terms of character, value and quality.
High	Change that would be more limited in extent and scale with the loss of important landscape elements and features, that may also involve the introduction of new uncharacteristic elements or features that contribute to an overall change of the landscape in terms of character, value and quality.
Medium	Changes that are modest in extent and scale involving the loss of landscape characteristics or elements that may also involve the introduction of new uncharacteristic elements or features that would lead to changes in landscape character, and quality.
Low	Changes affecting small areas of landscape character and quality, together with the loss of some less characteristic landscape elements or the addition of new features or elements.
Negligible	Changes affecting small or very restricted areas of landscape character. This may include the limited loss of some elements or the addition of some new features or elements that are characteristic of the existing landscape or are hardly perceivable.

10.19 The significance of a landscape impact is based on a balance between the sensitivity of the landscape receptor and the magnitude of the impact. The significance of landscape impacts is arrived at using the following matrix:

**Table 10-3: Landscape Impact Significance Matrix**

Scale/Magnitude	Description				
	Very High	High	Medium	Low	Negligible
Very High	Profound	Profound-substantial	Substantial	Moderate	Slight
High	Profound-substantial	Substantial	Substantial-moderate	Moderate-slight	Slight-imperceptible
Medium	Substantial	Substantial-moderate	Moderate	Slight	Imperceptible
Low	Moderate	Moderate-slight	Slight	Slight-imperceptible	Imperceptible
Negligible	Slight	Slight-imperceptible	Imperceptible	Imperceptible	Imperceptible

Note: Judgements deemed 'substantial' and above are considered to be 'significant impacts' in EIA terms

## Assessment Criteria for Visual Effect

10.20 As with the landscape impact, the visual impact of the Proposed Development will be assessed as a function of receptor sensitivity versus magnitude. In this instance, the sensitivity of visual receptors, weighed against the magnitude of visual effects.

### Visual Sensitivity

10.21 Unlike landscape sensitivity, visual sensitivity has an anthropocentric basis. Visual sensitivity is a two-sided analysis of receptor susceptibility (people or groups of people) versus the value of the view on offer at a particular location.

10.22 To assess the susceptibility of viewers and the amenity value of views, the assessors use a range of criteria and provide a four-point weighting scale to indicate how strongly the viewer/view is associated with each of the criterion. Susceptibility criteria is extracted directly from the IEMA Guidelines for Landscape and Visual Assessment (2013), whilst the value criteria relate to various aspects of a view that might typically be related to high amenity including, but not limited to, scenic designations. These are set out below:

- Susceptibility of receptor group to changes in view. This is one of the most important criteria to consider in determining overall visual sensitivity because it is the single category dealing with viewer susceptibility. In accordance with the IEMA Guidelines for Landscape and Visual Assessment (3rd edition 2013) visual receptors most susceptible to changes in views and visual amenity are:

*'Residents at home*

*People, whether residents or visitors, who are engaged in outdoor recreation, including use of public rights of way, whose attention or interest is likely to be focussed on the landscape and on particular views.*

*Visitors to heritage assets, or to other attractions, where views of the surroundings are an important contributor to the experience.*

*Communities where views contribute to the landscape setting enjoyed by residents in the area.*



*Travellers on road rail or other transport routes where such travel involves recognised scenic routes and awareness of views is likely to be heightened’.*

- ‘Visual receptors that are less susceptible to changes in views and visual amenity include:

*‘People engaged in outdoor sport or recreation, which does not involve or depend upon appreciation of views of the landscape.*

*People at their place of work whose attention may be focussed on their work or activity, not their surroundings and where the setting is not important to the quality of working life’.*

## Value of Views

10.23 To assess the amenity value of views, Macro Works use a range of criteria that might typically be related to high amenity value including but not limited to, scenic designations. These are set out below:

- **Recognised scenic value of the view** (County Development Plan designations, guidebooks, touring maps, postcards etc). These represent a consensus in terms of which scenic views and routes within an area are strongly valued by the population because in the case of County Development Plans, at least, a public consultation process is required.
- **Views from within highly sensitive landscape areas.** Again, highly sensitive landscape designations are usually part of a county’s Landscape Character Assessment, which is then incorporated with the County Development Plan and is therefore subject to the public consultation process. Viewers within such areas are likely to be highly attuned to the landscape around them.
- **Intensity of use, popularity.** Whilst not reflective of the amenity value of a view, this criterion relates to the number of viewers likely to experience a view on a regular basis and whether this is significant at county or regional scale.
- **Connection with the landscape.** This considers whether or not receptors are likely to be highly attuned to views of the landscape i.e. commuters hurriedly driving on busy national route versus hill walkers directly engaged with the landscape enjoying changing sequential views over it.
- **Provision of elevated panoramic views.** This relates to the extent of the view on offer and the tendency for receptors to become more attuned to the surrounding landscape at locations that afford broad vistas.
- **Sense of remoteness and/or tranquillity.** Remote and tranquil viewing locations are more likely to heighten the amenity value of a view and have a lower intensity of development in comparison to dynamic viewing locations such as a busy street scene, for example:
- **Degree of perceived naturalness.** Where a view is valued for the sense of naturalness of the surrounding landscape it is likely to be highly sensitive to visual intrusion by obvious human interventions.
- **Presence of striking or noteworthy features.** A view might be strongly valued because it contains a distinctive and memorable landscape feature such as a promontory headland, lough or castle.

- **Historical, cultural or spiritual value.** Such attributes may be evident or sensed at certain viewing locations that attract visitors for the purposes of contemplation or reflection heightening the sense of their surroundings.
- **Rarity or uniqueness of the view.** This might include the noteworthy representativeness of a certain landscape type and considers whether other similar views might be afforded in the local or the national context.
- **Integrity of the landscape character in view.** This criterion considers the condition and intactness of the landscape in view and whether the landscape pattern is a regular one of few strongly related components or an irregular one containing a variety of disparate components.
- **Sense of place.** This criterion considers whether there is special sense of wholeness and harmony at the viewing location.
- **Sense of awe.** This criterion considers whether the view inspires an overwhelming sense of scale or the power of nature.

10.24 Those locations where highly susceptible receptors or receptor groups are present, and which are deemed to satisfy many of the view value criteria above are likely to be judged to have a high visual sensitivity and vice versa.

## Visual Impact Magnitude

10.25 The magnitude of visual effects is determined on the basis of two factors; the visual presence of the proposal and its effect on visual amenity.

10.26 Visual presence is a somewhat quantitative measure relating to how noticeable or visually dominant the proposal is within a particular view. This is based on a number of aspects beyond simply scale in relation to distance. Some of these include the extent of the view as well as its complexity and the degree of existing contextual movement experienced such as might occur where turbines are viewed as part of / beyond a busy street scene. The backdrop against which the development is presented and its relationship with other focal points or prominent features within the view is also considered. Visual presence is essentially a measure of the relative visual dominance of the proposal within the available vista and is expressed as such i.e. minimal, sub-dominant, co-dominant, dominant, highly dominant.

10.27 For wind energy developments, a strong visual presence is not necessarily synonymous with adverse impact, specifically being 'noticed' by viewers and contributing memorably to the experience of that view or location – positive or negatively. Instead, the 2018 Fáilte Ireland survey entitled 'Report on Visitor Awareness and Perceptions of the Irish Landscape' summarised results as below:

*"The majority of visitors appear not to notice the majority of development – even very large and visually prominent structures such as wind turbines and powerlines*

*It appears that there are significant divergences between the what can be seen and what is noticed*

*The majority of visitors expressed very limited desire to change developments that they do notice*

*The visibility of developments of all types give rise to significantly less adverse effects on the impression of landscape than may often be assumed in the decision-making process*

*The majority of visible development does not appear to have any adverse effects on the impression of the quality of the landscape” .*

10.28 With specific regard to wind farms, the following is mentioned within the main report:

*“Visibility at Locations*

*Windfarms or Wind Turbines were visible from four locations, they were mentioned by visitors at one location – Cobh. At this site 11% of visitors mentioned noticing wind energy projects*

*Visibility en-route to locations*

*Wind Energy projects were mapped as being visible en-route to six sites, they were mentioned by less than 5% of all visitors.”*

10.29 The purpose here is not to suggest that turbines are, unlikely to be noticed, regardless of the visual presence, but rather to highlight that the assessment of visual impact magnitude for wind turbines is more complex than just the degree to which turbines occupy a view. Furthermore, a clear and comprehensive view of a wind farm might be preferable in many instances to a partial, cluttered view of turbine components that are not so noticeable within a view. On the basis of these reasons, the visual amenity aspect of assessing impact magnitude is qualitative and considers such factors as the spatial arrangement of turbines both within the scheme and in relation to surrounding terrain and land cover. It also examines whether the Proposed Development contributes positively to the existing qualities of the vista or results in distracting visual effects and disharmony.

10.30 It should be noted that as a result of this two-sided analysis, a high order visual presence can be moderated by a low level of effect on visual amenity and vice versa. Given that wind turbines do not represent significant bulk; visual impacts result almost entirely from visual ‘intrusion’ rather than visual ‘obstruction’ (the blocking of a view). The magnitude of visual impacts is classified in the following table derived from the Guidelines for Landscape and Visual Impact Assessment:

**Table 10-4: Magnitude of Visual Impacts**

Magnitude of Impact	Description
Very High	The proposal obstructs or intrudes into a large proportion or critical part of the available vista and is without question the most noticeable element. An extensive degree of visual change will occur within the scene completely altering its character, composition and associated visual amenity
High	The proposal obstructs or intrudes into a significant proportion or important part of the available vista and is one of the most noticeable elements. A considerable degree of visual change will occur within the scene substantially altering its character, composition and associated visual amenity
Medium	The proposal represents a moderate intrusion into the available vista and is a readily noticeable element. A noticeable degree of visual change will occur within the scene perceptibly altering its character, composition and associated visual amenity
Low	The proposal intrudes to a minor extent into the available vista and may not be noticed by a casual observer and/or the proposal would not have a marked effect on the visual amenity of the scene
Negligible	The proposal would be barely discernible within the available vista and/or it would not influence the visual amenity of the scene

## Visual Impact Significance

- 10.31 As stated above, the significance of visual impacts is a function of visual receptor sensitivity and visual impact magnitude. This relationship is expressed in the significance matrix in **Table 10-3** above.

## Quality of Effects

- 10.32 In addition to assessing the significance of landscape/townscape effects and visual effects, EPA Guidance requires that the quality of the effects is also determined. This could be negative/adverse, neutral, or positive/beneficial.
- Positive Effects: A change which improves the quality of the environment.
  - Neutral and/or balanced Effects: No effects, or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
  - Negative/adverse Effects: A change that reduces the quality of the environment.<sup>[1][2][3][4][5][6][7][8][9][10][11][12][13][14][15][16][17][18][19][20][21][22][23][24][25][26][27][28][29][30][31][32][33][34][35][36][37][38][39][40][41][42][43][44][45][46][47][48][49][50][51][52][53][54][55][56][57][58][59][60][61][62][63][64][65][66][67][68][69][70][71][72][73][74][75][76][77][78][79][80][81][82][83][84][85][86][87][88][89][90][91][92][93][94][95][96][97][98][99][100]</sup>
- 10.33 In the case of commercial wind energy developments and the associated introduction of new moving structures within rural and upland areas, the quality of landscape and visual effects will almost always be negative, rather than positive or even neutral. Unless otherwise stated, the quality of landscape and visual effect judgements herein can be taken as negative.

## Assessment Criteria for Cumulative Effects

- 10.34 The NatureScot Guidance relating to ‘Assessing the Cumulative Effects of Onshore Wind Farms (2021) identify that cumulative impacts on visual amenity consist of combined visibility and sequential effects. The same categories have also been subsequently adopted in the Landscape Institute’s 2013 revision of the Landscape and Visual Impact Assessment Guidelines. The principal focus of wind energy cumulative impact assessment guidance relates to other wind farms - as opposed to other forms of development. This will also be the main focus herein, albeit with a subsequent consideration of cumulative impacts with other forms of notable development (existing, permitted or proposed), particularly within the Central Study Area.

*‘Combined visibility occurs where the observer is able to see two or more developments from one viewpoint. Combined visibility may either be in combination (where several wind farms are within the observer’s arc of vision at the same time) or in succession (where the observer has to turn to see the various wind farms).’*

*Sequential effects occur when the observer has to move to another viewpoint to see different developments. The occurrence of sequential effects may range from frequently sequential (the features appear regularly and with short time lapses between, depending on speed of travel and distance between the viewpoints) to occasionally sequential (long time lapses between appearances, because the observer is moving very slowly and / or there are large distances between the viewpoints.)’*

- 10.35 Cumulative impacts of wind farms tend to be negative rather than positive as they include the addition of moving manmade structures into a landscape and viewing context that already contains such development. Based on guidance contained within the SNH Guidelines relating to the Cumulative Effects of Wind Farms (2012) and the DoEHLG Wind Energy Guidelines (2006), cumulative impacts can be experienced in a variety of ways.
- 10.36 **Table 10-5**, below provides Macro Works’ criteria for assessing the magnitude of cumulative impacts, which are based on the SNH Guidelines (2012).

**Table 10-5: Magnitude of Cumulative Impacts**

Magnitude of Impact	Description
Very High	<ul style="list-style-type: none"> <li>The proposed wind farm will strongly contribute to wind energy development being the defining element of the surrounding landscape.</li> <li>It will strongly contribute to a sense of wind farm proliferation and a sense of being surrounded by wind energy development.</li> <li>Strongly adverse visual effects will be generated by the proposed turbines in relation to other turbines.</li> </ul>
High	<ul style="list-style-type: none"> <li>The proposed wind farm will contribute significantly to wind energy development being a defining element of the surrounding landscape.</li> <li>It will significantly contribute to a sense of wind farm proliferation and being surrounded by wind energy development.</li> <li>Significant adverse visual effects will be generated by the proposed turbines in relation to other turbines.</li> </ul>
Medium	<ul style="list-style-type: none"> <li>The proposed wind farm will contribute to wind energy development being a characteristic element of the surrounding landscape.</li> <li>It will contribute to a sense of wind farm accumulation and dissemination within the surrounding landscape.</li> <li>Adverse visual effects might be generated by the proposed turbines in relation to other turbines.</li> </ul>
Low	<ul style="list-style-type: none"> <li>The proposed wind farm will be one of only a few wind farms in the surrounding area and will be viewed in isolation from most receptors.</li> <li>It might contribute to wind farm development becoming a familiar feature within the surrounding landscape.</li> <li>The design characteristics of the proposed wind farm accord with other schemes within the surrounding landscape and adverse visual effects are not likely to occur in relation to these.</li> </ul>
Negligible	<ul style="list-style-type: none"> <li>The proposed wind farm will most often be viewed in isolation or occasionally in conjunction with other distant wind energy developments.</li> <li>Wind energy development will remain an uncommon landscape feature in the surrounding landscape.</li> <li>No adverse visual effects will be generated by the proposed turbines in relation to other turbines.</li> </ul>

## Landscape

### Existing Environment

#### Landform and Drainage

10.37 The landform of the Proposed Development Site and the central study area is typified by small but frequent rolling terrain that sits around c. 90m AOD. While the elevation change is not dramatic, the smaller scale and frequent transitions up/down these hills result in contrasting levels of exposure and enclosure.

- 10.38 The character of the wider study is rolling hills with progressively increasing elevation to the northwest, while the southeast progressively levels out to subtle undulations, except around river corridors. In the northwest quadrant, Slieve Na Calliagh rises to a maximum elevation of c. 270m AOD and comprises rolling hilltop summits aligned northeast to southeast. Aligned along the west of the study area, there are a number of locally elevated hills, with varied elevations of 180m AOD to 100m AOD. In contrast, the wider eastern half of the study area is typified by flat to low-rolling terrain; the Hill of Ward rises to a maximum elevation of c. 110m AOD and is a prominent landform within its flat surrounds. Two low rolling hills occur west and northwest of Raharney and rise to a maximum elevation of c. 150m AOD. The settlement of Delvin is also located on a locally elevated hill that rises to a height of c. 100m AOD.
- 10.39 The River Deel is the nearest notable watercourse. It is oriented in a general north-south direction, passing just over 6km to the south of the Proposed Development Site before it merges with the River Boyne in the southeast quadrant of the study area. The Stoneyford River also flows through the central study area just over 2.75km south of the proposed site before similarly merging with the River Boyne in the wider eastern half of the study area. Several small streams and drainage ditches also occur near the proposed site and typically drains easterly into the River Boyne and its surrounding tributaries.
- 10.40 The River Boyne is one of the more prominent watercourses within the 20km study extent. It primarily runs throughout its wider eastern half, passing some c. 8km from the Proposed Development at its nearest point. The River Boyne enters the study area in the southeast quadrant, where it also intersects the Royal Canal just west of the settlement of Longwood. The Royal Canal flows through the southern half of the study area.
- 10.41 The wider western half of the study area also encompasses several modest sized lakes in addition to a number of streams and rivers. Both Lough Bane, Lough Lene and the small Lough Adeel are located in the northwest quadrant of the study area, whilst the more sizable Lough Derravaragh is situated on the study area's western periphery. Slightly further north, there is a cluster of smaller lakes, including White Lough and Lough Glore. The nearest Lough is Newtown Lough, located immediately northeast of the proposal.

## Landcover and Landuse

- 10.42 The immediate surroundings are highly varied, with the small hills of the site itself overlaid with similarly scaled small fields and networks of hedgerows. However, several features of the immediate site surroundings contrast with the broader blanket of pasture and woodlands. To the south of the Proposed Development Site is Rosmead House and Gateway. While these features are set within farmland, open fields punctuated with specimen trees retain some resemblance to the historic parkland character, further articulated by the presence of the historic structures. In contrast, there is extractive industry between the two clusters of turbines, with a quarry located to the southeast of the south-eastern turbine of the northern cluster. There are also some of the largest patches of woodland/forestry of the central study area within the northernmost portion of the southern site area.
- 10.43 Consistently across the Proposed Development Site, the hedgerow vegetation, which typically borders the surrounding pastoral fields, tends to be well established, comprising dense mature tree lines and contributing to a notable sense of enclosure. The agricultural farmland within the southern study area ranges from this more complex patchwork of smaller pastoral fields, which often flank the outer periphery of the extensive peat bogs, which are scattered over the southern half of the study area, to broad open fields where landform and road corridors allow.



- 10.44 The wider study area comprises predominately pastoral farmland. However, Girley Bog is located within the northeast quadrant of the study area, and several large-scale bogs are also situated within the southern half of the study area. There are a number of commercial conifer plantations, and demesne landscapes are also evident in the form of mature tree lines and densely wooded thickets, which are in various states of use and disuse. The nearest to the Proposed Development Site, Ballinlough, has also been used as a festival venue. Regarding urban land uses, the only settlements within the central study area are Delvin to the south and the smaller settlement of Clonmellon to the north. Other notable land uses within the central study area include the linear transport corridors of the N51 and N52 and Delvin Castle Golf Club. Scattered towns and village settlements into the broader study area contribute to a variable degree of urban land cover/built form.

## Landscape Policy Context and Designations

### The Department of Environment, Heritage and Local Government Wind Energy Development Guidelines (2006)

- 10.45 The Wind Energy Development Guidelines (2006 and Draft 2019 revision) provide guidance on wind farm siting and design criteria for a number of different landscape types. This will specifically focus on the location and immediate context of the proposed wind farm. As described in the landform/drainage and landcover/land use section of both documents, the Proposed Development is generally located within 'Hilly and Flat Farmland', there are also sections of 'Flat Peatland' within the central study area. Therefore, both will be considered below.

#### Hilly and Flat Farmland Landscapes

- 10.46 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.”*

- 10.47 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.”*

- 10.48 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.”*

## 10.49 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.”*

## 10.50 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.”*

## 10.51 Cumulative -

*“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.”*

## Flat Peatland Landscapes

## 10.52 Location –

*“Wind energy developments can be placed almost anywhere in these landscapes from an aesthetic point of view. They are probably best located away from roadsides allowing a reasonable sense of separation. However, the possibility of driving through a wind energy development closely straddling a road could prove an exciting experience.”*

## 10.53 Spatial extent -

*“The vast scale of this landscape type allows for a correspondingly large spatial extent for wind energy developments.”*

## 10.54 Spacing -

*“Regular spacing is generally preferred, especially in areas of mechanically harvested peat ridges.”*

## 10.55 Layout -

*“In open expanses, a wind energy development layout with depth, preferably comprising a grid, is more appropriate than a simple linear layout. However, where a wind energy development is located close to feature such as a river, road or escarpment, a linear or staggered linear layout would also be appropriate.”*

## 10.56 Height -

*“Aesthetically, tall turbines would be most appropriate. In any case, in terms of viability they are likely to be necessary given the relatively low wind speeds available. An even profile would be preferred.”*

## 10.57 Cumulative -

*“The openness of vistas across these landscapes will result in a clear visibility of other wind energy developments in the area. Given that the wind energy developments are likely to be extensive and high, it is important that they are not perceived to crowd and dominate the flat landscape. More than one wind energy development might be acceptable in the distant background provided it was only faintly visible under normal atmospheric conditions.”*

10.58 In respect of the above guidance, the moderate spatial extent of the Proposed Development is in keeping with that recommended for both landscape types, with regards to the hilly and flat farmland context ‘in response to the scale of fields and such topographic features as hills and knolls’, which is true of the Proposed Development Site.

## Westmeath County Development Plan 2021 – 2027

10.59 A landscape character assessment for County Westmeath is included within the current development plan. The landscape character assessment divides the county into 11 landscape character areas (LCAs) with the Proposed Development Site situated in ‘LCA 3 – River Deel Lowlands’. This LCA is *‘typified by low-lying pasture punctuated with small lakes which are flanked by scrub and wet woodland. These rivers form part of the River Boyne and Blackwater SAC complex. The area east of Delvin and running south along the Meath Border is characterised by cutover, cutaway bogs and small tracts of intact bog.’*

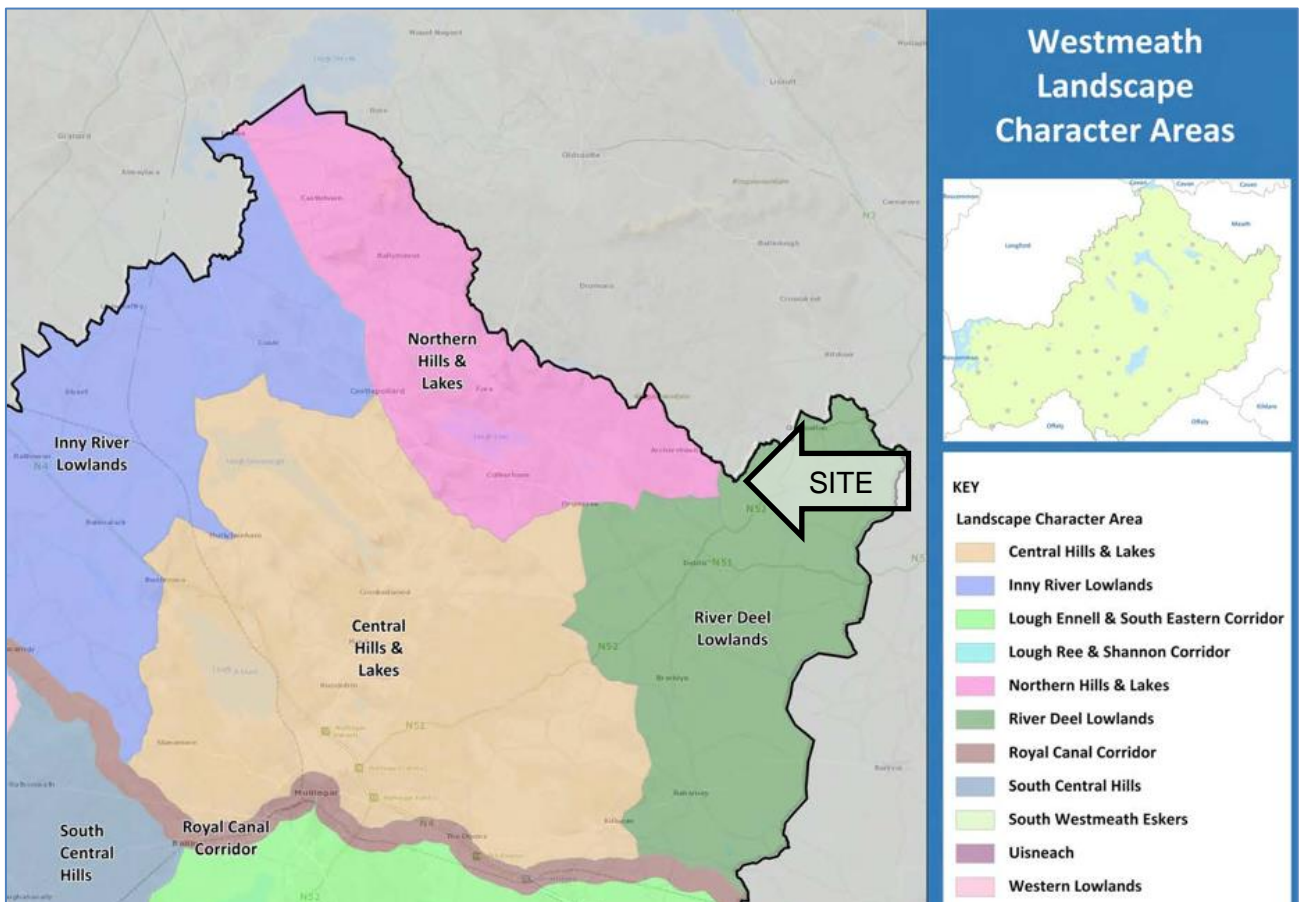
10.60 A number of ‘Areas of High Amenity’ are also designated in county Westmeath, three of which are located within the outer north-western quadrant of the study area and include, Lough Lene, Lough Derravaragh and Lough Owel. These areas are noted for their amenity and recreational value and *‘should be protected’*.

10.61 This LCA is *‘typified by low-lying pasture punctuated with small lakes which are flanked by scrub and wet woodland. These rivers form part of the River Boyne and Blackwater SAC complex. The area east of Delvin and running south along the Meath border is characterised by cutover, cutaway bogs and small tracts of intact bog’* *‘This part of the county has a strong historic landscape component with several demesne landscapes occurring within the area.’* A number of landscape character policies are outlined in Chapter 13 of the current CDP and are included below:

- “CPO 13.1 – Support the implementation of the National Landscape Strategy.
- CPO 13.2 – Protect the distinctiveness, value and sensitivity of County Westmeath’s landscapes and Lakelands by recognising their capacity to sustainability integrate development.
- CPO 13.3 – Support and implement objectives contained in any Regional Landscape Character Assessment.
- CPO 13.4 – Conserve and enhance the high nature conservation value of the Landscape Character Areas in order to create/protect ecologically resilient and varied landscapes.
- CPO 13.5 - Identify and integrate new green and blue infrastructure networks within the existing landscape character areas in the interests of biodiversity and climate change and in recognition of the tourism potential of these assets.
- CPO 13.6 - Require that development is sensitively designed, so as to minimise its visual impact on the landscape, nature conservation, archaeology and groundwater quality.’

- 10.62 Other landscape character areas within the wider study area include 'LCA 01 – Northern Hills and Lakes', 'LCA 4 – Central Hills and Lakes', 'LCA 5 – Royal Canal Corridor' and 'LCA 10 – Lough Ennell and South Eastern Corridor'. Whilst no sensitivity classifications are identified for the landscape character areas in Westmeath, LCAs 1, 4 and 5 are all noted for their '*high scenic quality*'.
- 10.63 The current CDP also identifies a number of landscape Policy Objectives. Those that are relevant to the Proposed Development area are included below:-
- 'CPO 13.8 – Protect the landscapes and natural environments of the County by ensuring that any new developments do not detrimentally impact on the character, integrity, distinctiveness or scenic value of their area. Any development which could unduly impact upon such landscapes will not be permitted.
  - CPO 13.9 - Ensure the preservation of the uniqueness of a landscape character type by having regard to the character, value and sensitivity of a landscape in new development proposals.
  - CPO 13.10 - Ensure development reflects and, where possible, reinforces the distinctiveness and sense of place of the landscape character types, including the retention of important features or characteristics, taking into account the various elements which contribute to their distinctiveness.
  - CPO 13.12 - Require a Landscape and Visual Impact Assessment for proposed developments with the potential to impact on significant landscape features within the county.'
- 10.64 A number of 'Areas of High Amenity (HAA)' are also designated in county Westmeath, three of which are located within the outer north-western quadrant of the study area and include, Lough Lene, Lough Derravaragh and Lough Owel. These areas are noted for their amenity and recreational value and '*should be protected*'. A number of high amenity policies, applicable to the Proposed Development and the surrounding study area, are included within the development plan and are outlined below:
- 'CPO 13.20 - Protect High Amenity areas from inappropriate development and reinforce their character, distinctiveness and sense of place.
  - CPO 13.21 - Protect and preserve designated High Amenity Areas from inappropriate urban generated housing development or any other development which would be injurious to or detract from the natural amenity of Areas of High Amenity.
  - CPO 13.22 - Protect lakeshores from any inappropriate development which would detract from the natural amenity of the area.
  - CPO 13.23 - Protect and enhance the special landscape character and exceptional landscape value of the Lough Ree Islands, including their significant archaeological, cultural and natural heritage value. Support the preparation for a Plan for the Islands in conjunction with the National Monuments Service and the National Parks and Wildlife Service.'

**Figure 10-1: Excerpt of Westmeath Map 68 – Landscape Character Areas**

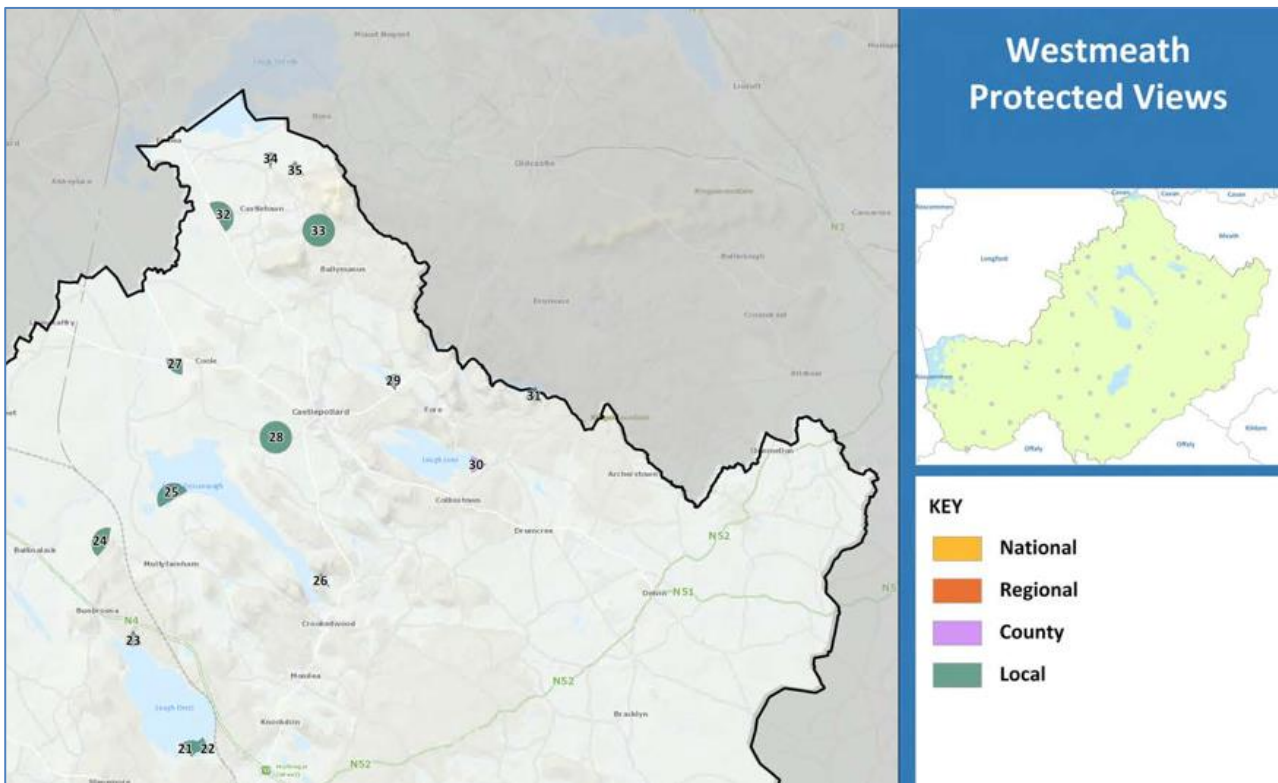


## Westmeath County Development Plan 2021-2027 – Wind Energy Policy

10.65 Chapter 10 of the current Westmeath CDP relates to Transport, Infrastructure and Energy and includes subsection 10.23 which relates to Wind Energy. A wind energy development capacity map is also included in Volume 2: Map 69 which outlines areas of ‘low capacity’ and ‘no capacity’ within County Westmeath. It is important to note that the above-mentioned capacity designations are the only two wind energy designations within the county. The Proposed Development is sited in an area identified as ‘Low capacity’ in relation to wind energy developments as identified in Figure 10.2 below. Policies and objectives relating to wind energy developments are outlined in the Planning Statement, submitted with this application, in particular with regards to the changes which were made after the receipt of Ministerial Direction and subsequent removal of CPO 10.143.



**Figure 10-2: Westmeath CDP Map 11.8 – Views and Prospects**



## Meath County Development Plan 2021-2027

- 10.66 Elements of the Proposed Development (the Proposed Substation and grid connection) are located within County Meath. The most relevant landscape character area in county Meath is 'LCA 17 – South West Kells Lowlands' from the Meath County Development Plan which is within the 'Lowland Landscapes' character type. This area is of 'Moderate' Value and 'Moderate' sensitivity, which is in the mid-low range for the Meath classification system. These will be addressed in relation to the different sections of the study area within the landscape sensitivity section.
- 10.67 Relevant Policy and Objectives by section. Source: Meath 2021-2017 County Development Plan, Chapter 8. Cultural and Natural Heritage Strategy.

**Table 10-6: Meath Policies and Objectives**

Section	Policy/ Objective
8.17.6 Landscape Capacity	<p>HER POL 52</p> <p>To protect and enhance the quality, character, and distinctiveness of the landscapes of the County in accordance with national policy and guidelines and the recommendations of the Meath Landscape Character Assessment (2007) in Appendix 5, to ensure that new development meets high standards of siting and design.</p> <p>HER POL 53</p> <p>To discourage proposals necessitating the removal of extensive amount of trees, hedgerows and historic walls or other distinctive boundary treatments.</p>



Section	Policy/ Objective
	<p>HER OBJ 49 To ensure that the management of development will have regard to the value of the landscape, its character, importance, sensitivity and capacity to absorb change as outlined in Appendix 5 Meath Landscape Character Assessment and its recommendations.</p> <p>HER OBJ 50 To require landscape and visual impact assessments prepared by suitably qualified professionals be submitted with planning applications for development which may have significant impact on landscape character areas of medium or high sensitivity.</p>
8.17.8 Landscape Conservation Areas	<p>HER POL 54 To protect the archaeological heritage, rural character, setting and amenity of the Tara landscape and Loughcrew and Slieve na Calliagh Hills.</p>
8.18 Views and Prospects	<p>HER OBJ 56 To preserve the views and prospects listed in Appendix 10, in Volume 2 and on Map 8.6 and to protect these views from inappropriate development which would interfere unduly with the character and visual amenity of the landscape.</p>

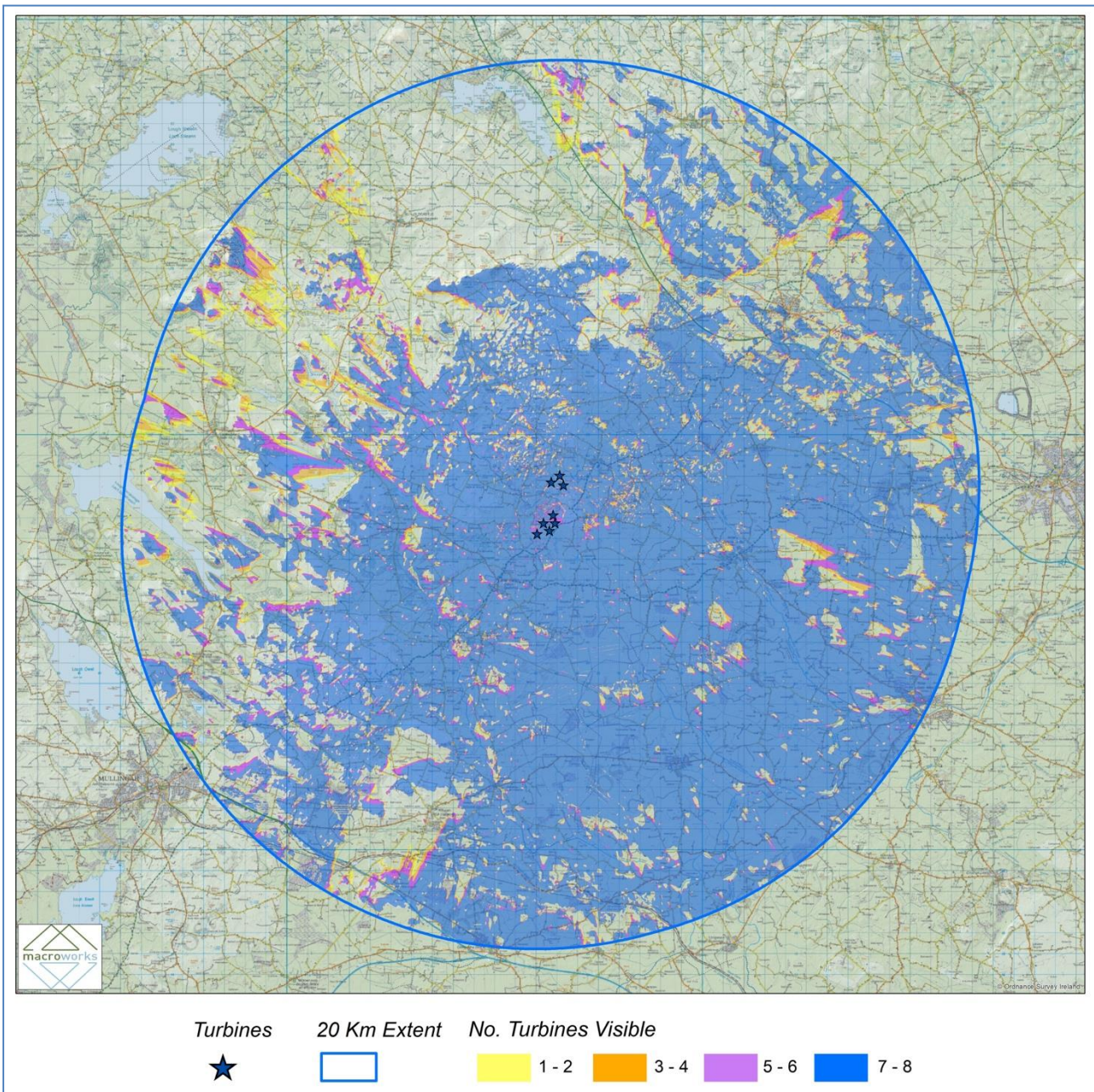
## Visual

10.68 Only those parts of the Study Area that potentially afford views of the Proposed Development are of interest to this part of the assessment. Therefore, the first part of the visual baseline is establishing a 'Zone of Theoretical Visibility' and subsequently, identifying important visual receptors from which to base the visual impact assessment.

### Zone of Theoretical Visibility (ZTV)

10.69 A computer-generated Zone of Theoretical Visibility (ZTV) map has been prepared to illustrate where the Proposed wind farm Development is potentially visible from. The ZTV map is based solely on terrain data (bare ground visibility), and ignores features such as trees, hedges or buildings, which may screen views. Given the complex vegetation patterns within this landscape, the main value of this form of ZTV mapping is to determine those parts of the landscape from which the Proposed Development will definitely not be visible, due to terrain screening within the Study Area.

**Figure 10-3: Bare-ground Zone of Theoretical Visibility (ZTV) Map**



10.70 The following key points are illustrated by the 'bare-ground' Wind Farm ZTV map (Figure 10-3 refers):

- Extensive Theoretical visibility extends across the lowland landscape to the south and east right out to the edge of the study area. There are localised points of low to no visibility, however these are few and isolated within the wider pattern of full (blue) visibility.
- Reflected in the landform descriptions of the study area, the northwest and south east contrast in landform, elevation and variability. To the north and northwest, the higher ground c. 10km from the Proposed Development Site limits visibility thereafter, with small sections over the periphery of the study area. The waterbodies over this (western) section of the study area tend to feature low to no potential visibility.

- Only sporadic visibility from elevated ground is afforded from the northeast and southwest outskirts, in particular over the north of the study area, there is a gradient of decreasing visibility the further from the proposal the viewer is, with the River Blackwater corridor featuring partial but generally low potential visibility.
- In contrast, over the south of the study area, the waterways and Royal Canal feature full visibility over much of the sections within the study area. However, this is without regards to built form or vegetation, and will be addressed in further detail within the visual impact assessments.

## Views of Recognised Scenic Value

10.71 Views of recognised scenic value are primarily indicated within County Development Plans in the context of scenic views/routes designations, but they might also be indicated on touring maps, guidebooks, roadside rest stops or on post cards that represent the area. The designated scenic views and routes are identified below, with the degree of visibility or direction of view relative to the identified scenic view orientation.

**Table 10-7: Designated views within the 20km study area**

ID	View Direction/Description	Direction relative to site, location within ZTV	VRP (if applicable)
<b>Westmeath County Development Plan 2021 – 2027</b>			
Scenic View 26	View from pier along south Lough Derravaragh. Significance: Local	View direction away from site. Outside of ZTV	N/A
Scenic View 28	Scenic drive through State Forest on Kinturk Avenue. Significance: Local	360-degree view. Outside of ZTV.	N/A
Scenic View 29	View of Lough Glore and surrounding landscape from Regional Road R-195 near Mooretown Crossroads. Significance: Local	View direction away from site. Outside of ZTV	N/A
Scenic View 30	View from Lough Lene Parking and Picnic area. Significance: County	View direction away from site	N/A
Scenic View 31	View of Lough Bane from Local Road L-1633. Significance: Local	View direction away from site. Outside of ZTV	N/A
Scenic View 33	Views of the Hill of Mael and Mullaghmeen from Local Road L-1759 which runs through the intervening valley. Significance: Local	360-degree view. Outside of ZTV.	N/A
<b>Meath County Development Plan Volume 1 County 2021-2027</b> <i>* Specifically identified by Meath County Council in scoping stage.</i>			
Scenic View 2	Location: County road at Bellewstown Direction: South Description: Views to south of Loughcrew skyline. Foreground contains extensive housing. Significance: Local	View towards site. Outside of ZTV.	N/A
Scenic View 3	Location: County road from R154 at Boolies Direction: South Description: Extensive views south west across unusually open and unenclosed landscape	View towards site. Outside of ZTV	N/A



ID	View Direction/Description	Direction relative to site, location within ZTV	VRP (if applicable)
	<p>towards skyline of cultural and scenic significance. Foreground and middleground obstructed by housing and infrastructure.</p> <p>Significance: Regional</p>		
Scenic View 4*	<p>Location: R154 between Patrickstown and Oldcastle I.</p> <p>Direction: North</p> <p>Description: Extensive view northwards across extensive settled landscape with settlements, housing, infrastructure and agriculture all visible. Infrastructure and housing visible in near and middle foreground. Few mature trees in foreground or middle distance. Extensive view southwards across extensive settled landscape with low densities of housing.</p> <p>Significance: Regional</p>	View away from site. Outside of ZTV	N/A
Scenic View 5*	<p>Location: R154 between Patrickstown and Oldcastle II</p> <p>Direction: South</p> <p>Description: Extensive view south across extensive landscape with relatively low levels of enclosure and relatively low levels of visible development.</p> <p>Significance: Regional</p>	View towards site. Within ZTV	Represented by VP1 (Loughcrew Cairns)
Scenic View 6*	<p>Location: Slieve na Calliagh</p> <p>Direction: Panorama</p> <p>Description: Panoramic views in all directions including intervisibility between the 3 peaks. Site of high cultural and scenic significance characterised by absent or very low levels of enclosure.</p> <p>Significance: National</p>	View towards site. Within ZTV	VP1 (Loughcrew Cairns)
Scenic View 7*	<p>Location: County road between Rahaghy and Patrickstown</p> <p>Direction: South East</p> <p>Description: Extensive view across important scenic and cultural landscape.</p> <p>Significance: Regional</p>	View towards site. Outside of ZTV	N/A
Scenic View 8*	<p>Location: County Road between Skerry Cross Roads and Ballinlough</p> <p>Direction: South west</p> <p>Description: Framed View from local road across Lough Bane</p> <p>Significance: Regional</p>	View away from site. Within of ZTV	VP6 (Lough Bawn)
Scenic View 9*	<p>Location: County road between Crossakiel and Magee's Cross Roads</p> <p>Direction: West</p> <p>Description: Extensive view of cultural significance. Skyline to the west across normal pasture and</p>	View away from site. Outside of ZTV	N/A

ID	View Direction/Description	Direction relative to site, location within ZTV	VRP (if applicable)
	tillage landscape with extensive housing and agricultural buildings and infrastructure. Significance: Regional		
Scenic View 10*	Location: County road between Crossakiel and Ardglassan Direction: North west Description: Extensive view across mature agricultural area with low densities of non-agricultural development and low intensities of infrastructure visible. Extensive view of Loughcrew and extensive view to south of wooded skylines and distant hills. Similar views available along much of this road. Significance: National	View away from site. View location outside of ZTV.	N/A  'Extensive views south' represented by VP3 (Crossakiel)
Scenic View 11*	Location: County road between Ardglassan and Rathniska Direction: South and West Description: View to south: Extensive views across tillage lowlands. Very low levels of development visible. Many mature trees and large fields. View to west: Occasional views of Loughcrew. Established pattern of settlement and infrastructure. Significance: Local	View to south towards site. Within ZTV.	VP3 (Crossakiel)
Scenic View 12*	Location: County road between Keeran's Cross Roads and Commons of Lloyd at Castlepole Direction: North Description: View to the north. Typical lowland pasture and tillage. Fields bounded by mature trees. Extensive development visible including housing, agricultural structures and infrastructure (including bypass). Significance: Local	View away from site. Within ZTV	N/A
Scenic View 13*	Location: Tower of Lloyd at Kells Direction: Panorama Description: 360 degree panoramic views to surrounding landscape. Significant visual relationships including Loughcrew to the west and toward Carlingford Lough and the Mourne Mountains to the north east. Views also including extensive areas of development including infrastructure and urbanisation. Site is also of cultural heritage significance. Significance: National	View towards site. Within ZTV	VP2 (Tower of Lloyd)
Scenic View 14*	Location: R163 between Kells and Drumbaragh Direction: North and North East	Views away from site. Marginally within ZTV	N/A

ID	View Direction/Description	Direction relative to site, location within ZTV	VRP (if applicable)
	<p>Description: Extensive view to north-north-east across a landscape of settlement, infrastructure, mixed farming and woodland</p> <p>Significance: Local</p>		
Scenic View 15	<p>Location: County road between Carlanstown and Ardlonan</p> <p>Direction: East</p> <p>Description: Expansive views to east across typical agricultural lowlands with low levels of scattered development</p> <p>Significance: Local</p>	Views away from site. Marginally within ZTV	N/A
Scenic View 52*	<p>Location: Hill of Ward</p> <p>Direction: Panorama</p> <p>Description: Panoramic views in all directions to very distant horizons. Very open landscape in foreground and middle distance across a working landscape with relatively little settlement visible except for town of Athboy to west.</p> <p>Significance: Regional</p>	Views towards site. Within ZTV.	VP27 (Hill of Ward)
Scenic View 53	<p>Location: Views away from site. Marginally within ZTV</p> <p>Direction: North, North East and South</p> <p>Description: View of Boyne in open and largely undeveloped countryside. View to the north and north east of typical river corridor with immature vegetation from R161. No development currently visible. No apparent cultural heritage significance is visible.</p> <p>Significance: Local</p>	Views generally away from site (site to northwest). Within ZTV	<p>N/A</p> <p>(Located midway between VP35 and VP33 – both representative of R161)</p>
Scenic View 54	<p>Location: On R161 at Royal Canal</p> <p>Direction: East and West</p> <p>Description: Views along Royal Canal to the east and west at intersection with R161</p> <p>Significance: Regional</p>	Views not towards site. Within ZTV	VP33 (R161 on Royal Canal)
Scenic View 55	<p>Location: On Stoneyford Bridge on county road between Blackshade and Moyfin</p> <p>Direction: North</p> <p>Description: View to middle distance along the River Boyne. Typical lowland countryside. Very little development visible.</p> <p>Significance: Local</p>	Site at periphery of view (northwest). Marginally within ZTV	Representative view VP33 (R161 at Royal Canal)
Scenic View 78	<p>Location: Boyne Valley from Derrindaly Bridge</p> <p>Direction: North and South</p> <p>Description: View of Boyne in open and largely undeveloped countryside</p> <p>Significance: Local</p>	Site at periphery of view (northwest). Within ZTV	VP33 (R161 at River Boyne)



ID	View Direction/Description	Direction relative to site, location within ZTV	VRP (if applicable)
Scenic View 79	Location: Boyne Valley from Scarrif Bridge Direction: North East and South West Description: View of Boyne in open and largely undeveloped countryside Significance: Local	Views towards site. Within ZTV	Represented by VP33 (R161 at River Boyne)
Scenic View 80	Location: Blackwater Valley Navan from R147 Kells Road in the vicinity of Bloomsbury Direction: South East Description: River view in context of mature trees. Significance: Local	Views towards site. Not within ZTV	N/A
Scenic View 81	Location: Blackwater Valley from Maudlin Bridge Direction: South East and North West Description: River view in context of mature trees. Significance: Local	Views towards site. Not within ZTV	N/A
Scenic View 82	Location: Blackwater Valley from Mabes Bridge Direction: East and West Description: River view in context of mature trees. Significance: Local	Views not towards site. Not within ZTV	N/A
Scenic View 83	Location: Clonard Blackshade Direction: South East and North West Description: Blackshade Bridge over the Royal Canal and with views along the canal in both directions. Significance: Local	Views towards site. Marginally within ZTV	Represented by VP35 (R161 at Royal Canal)
Scenic View 85	Location: Headford Bridge Direction: East and West Description: View of River Blackwater from Headford Bridge with estate landscape visible. Significance: Local	Views not towards site. Not within ZTV	N/A
Scenic View 94	Location: Moylagh Castle from local road to east of R195 Direction: South East Description: View of Moylagh Castle and Motte Significance: Local	Views towards site. Not within ZV	N/A
<b>Cavan County Development Plan 2022 - 2028</b>			
There are no Cavan CDP scenic designations within the study area.			

## Existing Environment

### Centres of Population

- 10.72 The largest settlements within the study area are Kells, 13.5km northeast, with Athboy 8.85km to the southeast, and Trim 19.2km southeast. Mullingar and Kinnegad occur at the far southern boundary of the study area but do not substantially overlay the study area.
- 10.73 The nearest town to the Proposed Development Site is Clonmellon, which is located 1.95km northeast of it along the N52 national road. To the south of the site (also along the N52) is Delvin, 2.8km southwest. Crossakiel is a smaller town 6.6km to the north, as is Collinstown, which is located 10km west. In the wider study area, there are a myriad of settlements and clusters of development of different sizes. These include Kildalkey (12km southeast), Ballivor (12.5km south), Killucan (14.4km south), Oldcastle (14.7km north), Castlepollard (16km northwest), Mullagh (18km north), and Virginia (19.6km north).
- 10.74 The central study area also encompasses a dispersed rural population, with some within a kilometre of the Proposed Development Site. The open lowland areas feature a higher density of settlements, with a high proportion of residences along the local roads across the entirety of the study area. The rolling areas to the west feature slightly less uniform development, covered by a scattering of standalone residences, located down and along winding lanes over the upland areas.

### Transport Routes

- 1.1 The most notable transport route across the study area is the N52, which runs directly alongside the Proposed Development Site, 170m east of the nearest proposed turbine at its closest point. The N52 passes diagonally from northeast to southwest across the entire study area. 10km northeast of the site, at Kells, the N3 transitions to/from the M3, which skirts the north of the study area (N3 to the west and M3 to the east) at the junction with the N52. There is a section of the N51 in the west of the study area, between the M3 and the N52 (southeast of the site, 2.3km at the nearest). The M4/M6/N4 interchange is within the wider study area at Kinnegad, 20km south of the Proposed Development Site. The N4 traces the southern section of the study area, intersecting with the N52 at the southwestern periphery near Mullingar.
- 10.75 There is a relatively dense network of regional roads over the study area, especially where they converge/diverge from the (large and small) population centres of the study area. The nearest to the site is R395, c.3km to the southwest. Others include the R154, which crosses through the north of the study area to the southeast.
- 10.76 Alternative transport routes include the Royal Canal to the south of the study area, which is primarily included as a heritage and amenity feature, as discussed below.

### Tourism, Amenity and Heritage features

- 10.77 While there are many features across the study area, the most notable is the Loughcrew complex situated c. 10km northwest of the Proposed Development Site. Loughcrew is the site of a megalithic cemetery containing up to 30 passage tombs and is located across three hills near Oldcastle in County Meath. Said to be one of the 'most important prehistoric cemeteries in Ireland', the Loughcrew complex hosts several walks across these hills and affords elevated distant views across the surrounding landscape. The Loughcrew complex is located along the 225km Boyne Valley Drive, of which the nearest point to the site is c. 5km north at Kilskeer along the R154. The Boyne Valley Drive passes several other important heritage features also located within the northern and eastern half of the study

area. These include the Tower of Lloyd, situated just over 12km northeast of the Proposed Development Site; the Hill of Ward, located on the outskirts of Athboy, some 10.5km east of it; and Trim Castle, just over 19km southeast.

- 10.78 As mentioned in the land uses section, there is a collection of Historical Residences, Estates, and gardens across the study area. The nearest such feature is the ‘Smiling Bess’ gateway off N52 to access Rosmead House. The gate is 900m southwest of the nearest turbine, while the house is 400m southwest. Following this, the closest to the Proposed Development Site is Ballinlough Castle (manor), which also hosts the ‘Body and Soul’ music festival. The central building is 1.5km east of the site, with the entrance 1.4km east. To the north is Killua Castle, 3.2km to the northeast. Clonyn Castle, in Delvin, is located c. 3.5km south, along with the ruins of Delvin Castle, situated along the main street (N52) of Delvin. Others within the study area are Trim Castle (mentioned above), Loughcrew Estate, adjacent to the Loughcrew complex in the north of the study area, Headford/Headfort Estate at Kells, Tullynally Castle in the northwest of the study area at Castlepollard. Other estate houses occupied for a variety of uses are Drewstown House, 5.8km northwest of the site, currently in use as a retreat centre; Clonabreany House, 6.6km to the northeast, which is a country house and modern-day wedding venue; Triermore House, located 4.9km east is a country house and horse stud.
- 10.79 In the wider study area, there is a cluster of historic features. One cluster occurs in the valley around Fore Abbey, with St. Feichin’s Abbey, Anchorites Cell, and Mullaghmeen Hill, all located 12km northwest of the Proposed Development Site. In addition, Moylagh Castle and Motte are situated northwest of the study area, southwest of the Loughcrew Estate. The complete analysis of heritage features will be addressed in Chapter 12.
- 10.80 There are a number of landscape/amenity features within the study area, with varied degrees of access and facilities. Lough Lene/Sheever is located 9.2km northwest and is a designated High Amenity Area in Westmeath, as is Lough Derravaragh (15.2km west). Lough Bawn/Bane is located 7.65km northwest. Lough Ramor is located 15.3km northwest. Girley Bog carpark and signposting are located 7km northwest of the Proposed Development Site, forming a local recreation and natural amenity feature with walking trails around the Bog.
- 10.81 Whilst the central study area is not synonymous with outdoor recreation, many waymarked trails and walking routes are located in the wider study area. The most notable of these is the Royal Canal Way – a 144km national waymarked trail which follows the corridor of the Royal Canal throughout the wider southern half of the study area. The Royal Canal Greenway also follows the corridor of the Royal Canal commencing at the Westmeath – Meath county border as it travels west before exiting the study area west of Mullingar. In addition, the Tain Trail & The Fore Trail is also within the wider study area.

## Identification of Viewshed Reference Points as a Basis for Assessment

- 10.82 The results of the ZTV analysis provide a basis for the selection of Viewshed Reference Points (VRP’s), which are the locations used to study the landscape and visual impact of the proposed wind farm in detail. It is not warranted to include each and every location that provides a view of the Proposed Development as this would result in an unwieldy report and make it extremely difficult to draw out the key impacts arising from the Proposed Development. Instead, a variety of receptor locations was selected that are likely to provide views of the Proposed Development from different distances, different angles and different contexts.
- 10.83 The visual impact of a Proposed Development is assessed using up to 6 categories of receptor type as listed below:

- Key Views (from features of national or international importance).
- Designated Scenic Routes and Views.
- Local Community views.
- Centres of Population.
- Major Routes.
- Amenity and heritage features.

10.84 Where a VRP might have been initially selected for more than one reason it will be assessed according to the primary criterion for which it was chosen. The characteristics of each receptor type vary as does the way in which the view is experienced. These are described below.

## **Key Views**

10.85 These VRPs are at features or locations that are significant at the national or even international level, typically in terms of heritage, recreation or tourism. They are locations that attract a significant number of viewers who are likely to be in a reflective or recreational frame of mind, possibly increasing their appreciation of the landscape around them. The location of this receptor type is usually quite specific.

## **Designated Scenic Routes and Views**

10.86 Due to their identification in the relevant County Development Plan this type of VRP location represents a general policy consensus on locations of high scenic value within the Study Area. These are commonly elevated, long distance, panoramic views and may or may not be mapped from precise locations. They are more likely to be experienced by static viewers who seek out or stop to take in such vistas.

## **Local Community Views**

10.87 This type of VRP represents those people who live and/or work in the locality of the Proposed Development, usually within a 5km radius of the Proposed Development Site. Although the VRPs are generally located on local level roads, they also represent similar views that may be available from adjacent houses. The precise location of this VRP type is not critical; however, clear elevated views are preferred, particularly when closely associated with a cluster of houses and representing their primary views. Coverage of a range of viewing angles using several VRPs is necessary in order to sample the spectrum of views that would be available from surrounding dwellings.

## **Centres of Population**

10.88 VRPs are selected at centres of population primarily due to the number of viewers that are likely to experience that view. The relevance of the settlement is based on the significance of its size in terms of the Study Area or its proximity to the Proposed Development Site. The VRP may be selected from any location within the public domain that provides a clear view either within the settlement or in close proximity to it.

## **Major Routes**

10.89 These include national and regional level roads and rail lines and are relevant VRP locations due to the number of viewers potentially impacted by the Proposed Development. The

precise location of this category of VRP is not critical and might be chosen anywhere along the route that provides clear views towards the Proposed Development Site, but with a preference towards close and/or elevated views. Major routes typically provide views experienced whilst in motion and these may be fleeting and intermittent depending on screening by intervening vegetation or buildings.

## Tourism, Recreational and Heritage Features

- 10.90 These views are often one and the same given that heritage locations can be important tourist and visitor destinations and amenity areas or walking routes are commonly designed to incorporate heritage features. Such locations or routes tend to be sensitive to development within the landscape as viewers are likely to be in a receptive frame of mind with respect to the landscape around them. The sensitivity of this type of visual receptor is strongly related to the number of visitors they might attract and, in the case of heritage features, whether these are discerning experts or lay tourists. Sensitivity is also heavily influenced by the experience of the viewer at a heritage site as distinct from simply the view of it. This is a complex phenomenon that is likely to be different for every site. Experiential considerations might relate to the sequential approach to a castle from the car park or the view from a hilltop monument reached after a demanding climb. It might also relate to the influence of contemporary features within a key view and whether these detract from a sense of past times. It must also be noted that the sensitivity rating attributed to a heritage feature for the purposes of a landscape and visual assessment is not synonymous with its importance to the Archaeological or Architectural Heritage record.
- 10.91 The Viewshed Reference Points selected in this instance are set out in **Table 10-8** below and shown on the VP selection Map in the Photomontage Booklet.



Figure 10-4: Viewpoint Locations

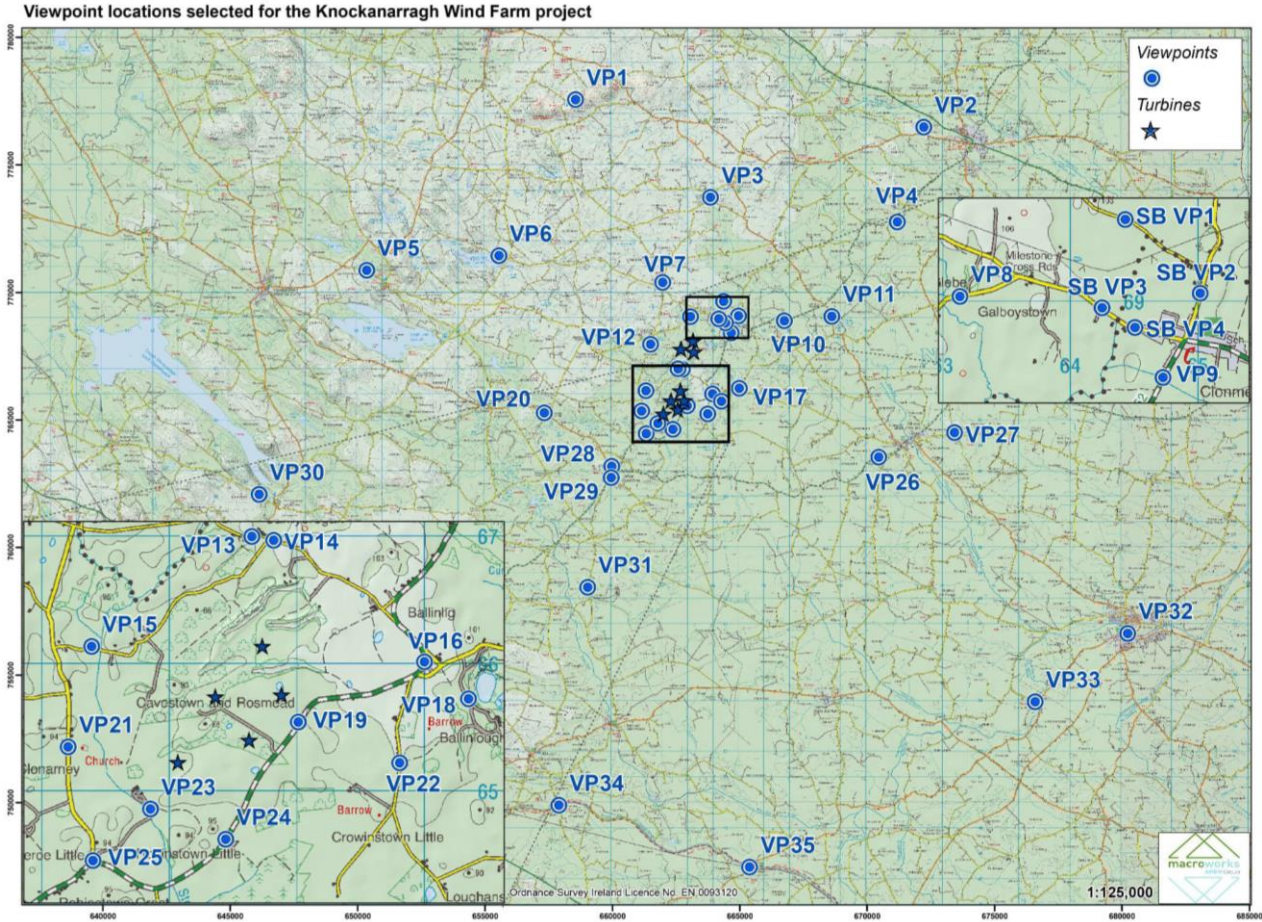


Table 10-8: Outline description of selected Viewshed Reference Points

(See Figure 10.4 for VP Locations / also see VRP map at Volume 3, Book 1, Book 2, and Book 2 for further details)

VRP No.	Location	Receptor/Representative of:	Distance to Site (km)	Direction of view
VP1	Loughcrew Cairns	<ul style="list-style-type: none"> <li>Key Views (from features of national or international importance);</li> <li>Designated Scenic Routes and Views;</li> <li>Amenity and heritage features.</li> </ul>	10.5km	SE
VP2	Tower of Lloyd	<ul style="list-style-type: none"> <li>Key Views (from features of national or international importance);</li> <li>Designated Scenic Routes and Views;</li> <li>Local Community views;</li> <li>Centres of Population;</li> <li>Amenity and heritage features.</li> </ul>	12.5km	SW
VP3	Local Road south of Crossakiel	<ul style="list-style-type: none"> <li>Designated Scenic Routes and Views;</li> <li>Local Community views;</li> <li>Centres of Population.</li> </ul>	5.7km	S

VRP No.	Location	Receptor/Representative of:	Distance to Site (km)	Direction of view
VP4	N52 south of Balrath Demesne	<ul style="list-style-type: none"> <li>Local Community views;</li> <li>Major Routes; and</li> <li>Amenity and heritage features.</li> </ul>	9.3km	S
VP5	Fore Abbey	<ul style="list-style-type: none"> <li>Designated Scenic Routes and Views;</li> <li>Local Community views;</li> <li>Amenity and heritage features.</li> </ul>	13km	SE
VP6	L28093 at Lough Bane	<ul style="list-style-type: none"> <li>Designated Scenic Routes and Views;</li> <li>Local Community views;</li> <li>Amenity and heritage features.</li> </ul>	8.2km	SE
VP7	Killallon Heritage Walk/Darcy's Cross Roads	<ul style="list-style-type: none"> <li>Local Community views;</li> <li>Amenity and heritage features.</li> </ul>	2.5km	S
VP8	Local Road north of the site	<ul style="list-style-type: none"> <li>Local Community views.</li> </ul>	1km	S
VP9	N52 at Clonmellon	<ul style="list-style-type: none"> <li>Centres of Population;</li> <li>Major Routes.</li> </ul>	1.6km	SW
VP10	N52 junction with L1546 north	<ul style="list-style-type: none"> <li>Local Community views;</li> <li>Major Routes; and</li> <li>Amenity and heritage features.</li> </ul>	3.7km	SW
VP11	R154 at Drewstown Little	<ul style="list-style-type: none"> <li>Local Community views;</li> <li>Major Routes.</li> </ul>	5.5km	SW
VP12	Local Road at Sranaboll, northeast of the site	<ul style="list-style-type: none"> <li>Local Community views.</li> </ul>	1.2km	E & SE
VP13	L5542 at Carnybrogan (a)	<ul style="list-style-type: none"> <li>Local Community views.</li> </ul>	760m	S
VP14	L5542 at Carnybrogan (a)	<ul style="list-style-type: none"> <li>Local Community views.</li> </ul>	800m	N
VP15	Local Road at Rosmead and Cavestown, west of the site	<ul style="list-style-type: none"> <li>Local Community views.</li> </ul>	1km	E & NE
VP16	N52 junction west of Ballinlough Castle	<ul style="list-style-type: none"> <li>Local Community views;</li> <li>Major Routes; and</li> <li>Amenity and heritage features.</li> </ul>	1.1km	W & NW
VP17	Kilrush Road north of Ballinlough Castle	<ul style="list-style-type: none"> <li>Local Community views;</li> <li>Amenity and heritage features.</li> </ul>	2.2km	W
VP18	Ballinlough Castle	<ul style="list-style-type: none"> <li>Local Community views;</li> <li>Amenity and heritage features.</li> </ul>	1.5km	W

VRP No.	Location	Receptor/Representative of:	Distance to Site (km)	Direction of view
VP19	N52 at Rosmead and Cavestown, east of site	<ul style="list-style-type: none"> <li>Local Community views;</li> <li>Major Routes.</li> </ul>	300m	E
VP20	R395 and The Táin Trail at Mabestown	<ul style="list-style-type: none"> <li>Local Community views;</li> <li>Major Routes; and</li> <li>Amenity and heritage features.</li> </ul>	1.2km	NW
VP21	L1532 west of site at Clonarney	<ul style="list-style-type: none"> <li>Local Community views;</li> <li>Amenity and heritage features.</li> </ul>	850m	E
VP22	L5525 southwest of Ballinlough Castle	<ul style="list-style-type: none"> <li>Local Community views;</li> <li>Amenity and heritage features.</li> </ul>	1km	W & NW
VP23	Rosmead House	<ul style="list-style-type: none"> <li>Amenity and heritage features.</li> </ul>	400m	N
VP24	N52 at Rosmead and Cavestown, southeast of site	<ul style="list-style-type: none"> <li>Local Community views;</li> <li>Major Routes.</li> </ul>	750m	N & NW
VP25	N52 at 'Smiling Bess' Rosmead House gateway	<ul style="list-style-type: none"> <li>Local Community views;</li> <li>Major Routes; and</li> <li>Amenity and heritage features.</li> </ul>	1km	N
VP26	N51 west of Athboy	<ul style="list-style-type: none"> <li>Local Community views;</li> <li>Centres of Population;</li> <li>Major Routes.</li> </ul>	8km	WN
VP27	Hill of Ward	<ul style="list-style-type: none"> <li>Designated Scenic Routes and Views;</li> <li>Local Community views;</li> <li>Amenity and heritage features.</li> </ul>	10.6km	W
VP28	R395 at Clonyn Castle, Delvin	<ul style="list-style-type: none"> <li>Centres of Population;</li> <li>Major Routes; and</li> <li>Amenity and heritage features.</li> </ul>	2.9km	N
VP29	N52 at Delvin Castle, Delvin	<ul style="list-style-type: none"> <li>Centres of Population;</li> <li>Major Routes; and</li> <li>Amenity and heritage features.</li> </ul>	3.3km	N
VP30	L1618 at Lough Derravaragh, Crookedwood	<ul style="list-style-type: none"> <li>Local Community views;</li> <li>Designated Scenic Routes and Views (High Amenity Area)</li> </ul>	16.2km	NE
VP31	Local road at Bracklin	<ul style="list-style-type: none"> <li>Local Community views.</li> </ul>	7.4km	N
VP32	Castle Street, Trim at Trim Castle	<ul style="list-style-type: none"> <li>Key Views (from features of national or international importance);</li> <li>Designated Scenic Routes and Views;</li> <li>Centres of Population.</li> <li>Amenity and heritage features.</li> </ul>	19.7km	NW
VP33	R161 at River Boyne	<ul style="list-style-type: none"> <li>Designated Scenic Routes and Views;</li> </ul>	18.1km	NW

VRP No.	Location	Receptor/Representative of:	Distance to Site (km)	Direction of view
		<ul style="list-style-type: none"> <li>Local Community views;</li> <li>Major Routes; and</li> <li>Amenity and heritage features.</li> </ul>		
VP34	Thomastown Bridge and 18th Lock	<ul style="list-style-type: none"> <li>Local Community views;</li> <li>Amenity and heritage features.</li> </ul>	15.9km	N
VP35	R161 at Royal Canal	<ul style="list-style-type: none"> <li>Designated Scenic Routes and Views;</li> <li>Local Community views;</li> <li>Major Routes; and</li> <li>Amenity and heritage features.</li> </ul>	18km	N
SB VP1	Kilskyre Road at Hartstown	<ul style="list-style-type: none"> <li>Local Community views.</li> </ul>	500m	S
SB VP2	L6822 north of Clonmellon	<ul style="list-style-type: none"> <li>Local Community views;</li> <li>Centres of Population.</li> </ul>	600m	W
SB VP3	L6821 at Galboystown	<ul style="list-style-type: none"> <li>Local Community views.</li> </ul>	50m	N
SB VP4	L6821 west of Clonmellon	<ul style="list-style-type: none"> <li>Local Community views;</li> <li>Centres of Population.</li> </ul>	200m	W

## Cumulative Baseline

10.92 Within the Study Area there is one permitted development to be considered within the cumulative baseline. This is located south of the site in the surrounds of Bracklyn Estate and cut bog.

10.93 Adjacent to Bracklyn, is a large 26 turbine scheme which is currently 'in-planning', Bord Na Mona 'Ballivor Wind Farm' application for 26 turbines over the extensive areas of bog to the southeast of the Proposed Knockanarragh site.

**Table 10-9: Cumulative Wind Farms within the Study Area (as of March 2023)**

Wind Farm Name	Number of Turbines	Distance and Direction from the Development Site	Status
Bracklyn	9 (185m tip height)	5km south	Permitted
Ballivor	26 (200m tip height)	4.8km south	In Planning

## Assessment of Potential Effects

### Do nothing Effects

10.94 In this instance the do-nothing effect would be that the receiving landscape stays in the same or similar condition as it currently is, with the patchwork of different vegetation types and loose network of local roads scattered with rural residences. The cycle of forestry which



is currently implemented across the landscape will remain in place with the proposed wind farm.

## Landscape Impacts

10.95 Landscape impacts are assessed on the basis landscape sensitivity weighed against the magnitude of physical landscape effects within the Proposed Development Site and effects on landscape character within the wider landscape setting. This wider setting is considered in respect of the immediately surrounding landscape (<5km) as well as the broader scale of the Study Area (5-20km).

## Landscape Character Value and Sensitivity (Wind Farm)

10.96 Landscape value and sensitivity are considered in relation to a number of factors highlighted in the Guidelines for Landscape and Visual Impact Assessment 2013, which are set out below and discussed relative to the proposed site, central study area and wider Study Area for the proposed wind farm.

10.97 Where a classification is described in the previous table, it will not be repeated in the following, but rather reference made to the preceding table.

10.98 With regards to the rating of the different landscape value/sensitivity/importance/capacity, it should be noted that the Meath Landscape Character Assessment is defined as below:

**Table 10-10: Cumulative Wind Farms within the Study Area (as of March 2023)**

Landscape Value	Landscape Sensitivity	Landscape Importance	Landscape Capacity
Exceptional	High	International	Low
Very High		National	
High	Medium (Moderate on Map 03: Landscape Sensitivity)	Regional	Medium
Moderate		Local	
Low	Low	Local	High
Very Low			

10.99 It should be noted that with regards to capacity that (generally) lower value/sensitivity/importance landscapes have higher capacity for development, and vice versa.

10.100 In contrast, Westmeath identifies separate 'Areas of High Amenity' (High Landscape Value), without applying a value to other Landscape Character Areas.

## Site and Immediate Surrounds (<1km)

10.101 The wind farm site itself is fully contained within Co. Westmeath, with a nuanced mosaic of rural land uses which transition north to south. The characteristics identified within the Co. Westmeath Landscape Character Assessment and relevant Wind Energy classifications will be summarised in **Table 10-11** (below) with regards to how they reflect and contribute to the overall landscape value and sensitivity.



**Table 10-11: Landscape Character Value and Sensitivity of the site and immediate surrounds (<1km)**

Landscape Character Analysis of site (within 1km)	
Landscape Character and Wind Designations (Co. Westmeath)	
Landscape Character Area Reference	LCA description (from County Development Plan)
<p><b>Landscape Character Area 3:</b> River Deel and Lowlands</p> <p>(Section 13.9 'Landscape and Lake Amenities' of 2021-2027 Westmeath CDP)</p>	<p><b>Character Area 3 River Deel and Lowlands Description:</b> <i>The River Deel, the Stonyford River and their hinterlands form this landscape character area <b>typified by low-lying pasture</b> punctuated with small lakes which are <b>flanked by scrub and wet woodland</b>. These rivers form part of the River Boyne and Blackwater SAC complex. The area east of Delvin and running south along the Meath Border is characterised by cutover, cutaway bogs and small tracts of intact bog.</i></p> <p><i>Settlements within this area include Clonmellon, Delvin, Killucan-Rathwire and Raharney which are located within the eastern commuter belt to Dublin. This part of the county has a strong historic landscape component with <b>several demesne landscapes</b> occurring within the area. Two <b>main road corridors</b> the N51 and <b>N52</b> traverse the area. A number of <b>quarries</b> are also operational in the area.</i></p> <p>The site itself is defined by/features the <b>emphasised</b> sections above. The remainder of the landscape description generally refers to the central study area, which is described in further detail below.</p>
<b>Co. Westmeath Wind Energy Designation/Sensitivity</b>	The proposal is classified by the County Development Plan as being within an area of 'Low' Wind Energy Capacity.
Landscape Character and Wind Designations (Co. Meath)	
<p><b>Landscape Character Area 17:</b> South West Kells Lowland</p> <p><b>Landscape Value:</b> Moderate Value</p> <p><b>Landscape Sensitivity:</b> Medium</p> <p><b>Landscape Importance:</b> Local</p>	<p><b>Character Area 17 South West Kells Lowlands Description:</b> <i>'A large rural area characterised by <b>rolling lowland farmland with remnants of parkland landscapes</b>... ..The southern part of this LCA is similar to the western part with areas of parkland but more coniferous plantations.</i></p> <p>Described as: <i>'Moving westwards the countryside is attractive but not in optimum condition and is characterised by low undulating fields that have been enlarged through loss of traditional boundaries. In many places hedgerows and drystone stone walls have been replaced by post on wire-fences on earth banks. Remaining boundary features are often poorly managed or in disrepair. <b>There are a number of large estate farms in this area and remnants of estate houses which have been lost, e.g. parkland/avenue trees and ornate entrance gates along the road corridor</b>'</i></p> <p>(Extracted from the full description within Co. Meath Landscape Character Assessment)</p>
<b>Co. Meath Wind Energy Designation/Sensitivity:</b> Low	<i>Low potential capacity to accommodate wind farms or single turbines because views within this LCA, and from the Loughcrew Hills LCA, are often extensive and such development is likely to be highly prominent. Viewers looking to and from the Loughcrew Hills will be particularly sensitive to modern additions to the view because of the historic significance of this landscape.</i>
Other Designations	
<b>Natura 2000</b>	There are two designated sites within the immediate surrounds of the site. These are: Proposed Natural Heritage Area: Lough Shesk Special Area Conservation: River Boyne And River Blackwater (Stonyford River)
Non-designated considerations	

Landscape Character Analysis of site (within 1km)	
<b>Visibility</b>	Overall, there is full theoretical visibility; however, there are small patches where one or more wind turbines will be screened from view. The actual visibility will vary based on vegetation and details of landform screening. In terms of representative viewpoints (included within the visual assessment section of this report) located within the immediate surrounds of the site, the closest viewpoint is VP19, located to the east of the southern cluster within Westmeath LCA 3. This is separated by viewer context via the national road. The second closest viewpoint is VP23, located near Rosmead House, and more representative of the wind farm context (within adjacent pasture) (Westmeath LCA 3). Finally, VP13 & VP14 are located between the two clusters of the proposed development. Other views within 1km are VP8, VP21, VP23, VP24, and VP25.
<b>Landscape</b>	The immediate (1km) landscape context of the proposal is consistent with the values of the wider landscape character area description (Westmeath LCA 3, Meath LCA 17) identified above, specifically featuring a patchwork of pasture, scrub, and woodland, the presence of historic and quarry land uses (Rosmead House & O'Reilly Concrete Clonmellon), as well as the presence of the main road corridor. The immediate surroundings of the southern cluster are of slightly higher amenity value than the north, Rosmead House, and its surroundings. However, this is balanced (in terms of overall landscape value) by the presence of the Stonyford River and Newtownton Lough, which bracket the northern cluster of turbines, adding a degree of natural character and habitat value.
<b>Land use precedent</b>	There are no existing turbines located within the site itself, or within 1km of any proposed wind turbines.

10.102 On balance of the factors outlined in **Table 10-11**, the Proposed Development Site and immediate surrounds are deemed to have **Medium-Low** Landscape sensitivity to wind energy development based on the criteria set out in **Table 10-1**.

## Central Study Area (1-5km)

**Table 10-12: Landscape Character Value and Sensitivity of the Central Study Area**

Landscape Character Value and Sensitivity of the Central Study Area (1-5km)	
Landscape Character and Wind Designations (Co. Westmeath)	
<b>Landscape Classification:</b> <b>Landscape Character</b> <b>Area 3:</b> River Deel and Lowlands	<b>Character Area 3 River Deel and Lowlands Description:</b> As above (Table 10-11).
<b>Landscape Character</b> <b>Area 1:</b> Northern Hills and Lakes	<b>Character Area 1 Northern Hills and Lakes Description:</b> <i>This Landscape Character Area consists of prominent hills topped with chert or cherty limestone with enclosed lakes and areas of peat deposits, mostly fen. A rural landscape of particularly high scenic quality containing a number of lakes with several preserved views, Lough Lene Area of High Amenity and Fore Special Heritage Area. The area is also of high nature conservation value with many NHAs and SACs and there is an extensive beech plantation at Mullaghmeen. Dispersed glacial deposits occur and there are a number of quarries operating in the area. Settlements within this landscape area include Finnea, Castlepollard, Collinstown and Drumcree. The historic settlement of Fore is of high cultural significance due to its monastic origins including many features of built and cultural interest around the site.</i>  The higher amenity points of this LCA (lakes, woodlands, historic settlements) are located in the wider west of the study area, with the 'toe' of the LCA aligned

Landscape Character Value and Sensitivity of the Central Study Area (1-5km)	
	with the County Meath/Westmeath boundary to the west of the site, contained by LCA 3, described above. Here the landscape character differs from the site and immediate surrounds in the uniform rural character, with rolling hills and typically clipped hedgerows bordering larger, regular sized fields and a lower density of local roads or built form.
<b>Co. Westmeath Wind Energy Designation/Sensitivity</b>	The proposal is classified by the County Development Plan as being within an area of 'Low' Wind Energy Capacity.
<b>Landscape Character and Wind Designations (Co. Meath)</b>	
<b>Landscape Character Area 17: South West Kells Lowlands</b>	<b>Character Area 17 South West Kells Lowlands Description:</b> As above (Table 10-11).
<b>Co. Meath Wind Energy Designation/Sensitivity:</b> Low	<i>Low potential capacity to accommodate wind farms or single turbines because views within this LCA, and from the Loughcrew Hills LCA, are often extensive and such development is likely to be highly prominent. Viewers looking to and from the Loughcrew Hills will be particularly sensitive to modern additions to the view because of the historic significance of this landscape.</i>
<b>Other Designations</b>	
<b>Natura 2000</b>	There are two designated sites within 1-5km of the site are the same as those identified in the immediate surrounds of the site, in particular the River Boyne And River Blackwater SAC, which occurs to both the north and south (Stonyford River, Athboy River).
<b>Non-designated considerations</b>	
<b>Visibility</b>	Similar to the site and immediate surroundings with regard to ZTV mapping, with generally full theoretical visibility, however, there are small patches where one or more wind turbines will be screened from view. The actual visibility will be variable with the established trees and large areas of woodland/scrub vegetation throughout this area. In terms of representative viewpoints, there are eight views (VP9, VP10, VP15, VP16, VP17, VP22, VP28, VP29) located within Westmeath LCA 3, and one (VP20) located on the periphery of LCA 3 and LCA 1. There are two (VP12, VP7) located within Co. Meath, LCA 17.
<b>Landscape</b>	As noted above, the site and immediate surroundings relate to sections of the LCA 3 description, but there are elements which occur more clearly within the areas 1-5km from the site (e.g. the N52, the settlements of Clonmellon and Delvin). The Central study area of this proposal encompasses much of the described Westmeath Landscape Character Area 3, with the exception of the identified Bog Areas, which are approximately 7km further south. The key addition to the immediate surroundings is the addition of the Ballinlough Castle and Grounds to the east of the site. Meanwhile, while the central study area overlays sections of Westmeath LCA 1 (Northern Hills and Lakes) but does not feature the key components that are described, it more closely resembles the characteristics of Westmeath LCA 3. As mentioned above, the northern section of the central study area is accurately described as the description of Meath LCA 17.
<b>Land use precedent</b>	There are no existing turbines located within the site itself, or within 5km of any proposed wind turbines.

10.103 On balance of the factors outlined in **Table 10-12**, the site and immediate surrounds are deemed to have Medium-Low landscape sensitivity to wind energy development based on the criteria set out in **Table 10-1**.

## Wider Study Area (5-10km)

**Table 10-13: Landscape Character Value and Sensitivity of the wider Study Area (5-10km)**

Landscape Character Value and Sensitivity of the Wider Study Area (5-10km)	
<b>Landscape Character and Wind Designations (Co. Westmeath)</b>	
<p><b>Landscape Classification:</b> Character Area 3 River Deel and Lowlands (Site located within LCA)</p> <p><b>Landscape Classification:</b> Character Area 1 Northern Hills and Lakes (c. 1.5km from site)</p> <p><b>Landscape Classification:</b> Central Hills and Lakes (c. 7km west of site)</p>	<p><b>Character Area 3 River Deel and Lowlands Description:</b> As above.</p> <p><b>Character Area 1 Northern Hills and Lakes Description:</b> As above</p> <p><b>Character Area 4 Central Hills and Lakes Description:</b> <i>'typified by undulating hills and lakes, the most prominent of which are Lough Derravaragh and Lough Owel. These lakes are designated Areas of High Amenity, SAC and SPA.</i></p> <p><i>'A number of fens occur throughout the area, the most notable being Scragh Bog which is of international importance. The high scenic quality and amenity value of this area is reflected by the <u>high number of preserved views</u>. There are a number of demesne landscapes in the area and associated valuable areas of semi-natural woodland, including oak on some upland areas, such as around Lough Derravaragh at Knockeyon and Crookedwood. This area has a number of small settlements such as Crookedwood, Multyfarnham and the larger settlement of Castlepollard.'</i> <i>'The lake edges are attractive locations for recreation and amenity.'</i></p>
<p><b>Wind Energy Designation:</b> Low Capacity</p>	<p><b>Westmeath Wind Energy Designation:</b> As above, the entirety of the study area within Westmeath is classified 'Low Capacity'.</p>
<b>Landscape Character and Wind Designations (Co. Meath)</b>	
<p><b>Landscape Character Area 17:</b> South West Kells Lowlands (within 1km of site)</p>	<p><b>Landscape Character Area 17 South West Kells Lowlands Description:</b> As above</p>
<p><b>Landscape Character Area 18:</b> Lough Sheelin Uplands (5.3km)</p> <p><b>Landscape Value:</b> High</p> <p><b>Landscape Sensitivity:</b> High</p> <p><b>Landscape Importance:</b> Regional</p> <p><b>Wind Energy Designation:</b> Low</p>	<p><b>Landscape Character Area 18 Lough Sheelin Uplands (5.3km):</b> <i>'most importantly this LCA forms the setting for the Loughcrew Hills on which there are arrange of passage tombs dating from around 3000BC'</i></p> <p><i>'The weathering of the hills and past and present quarrying of the underlying limestone has created a complex land form of hills, lakes and enclosed valleys that restrict long range views in many instances'</i></p> <p><b>Wind Energy Designation:</b> <b>Low potential capacity</b> to accommodate wind farm development primarily because of intervisibility with the Loughcrew Hills and the archaeological significance of the area but also the overall high sensitivity and value of this LCA.</p>
<p><b>Landscape Character Area 15:</b> South West Lowlands (7km)</p> <p><b>Landscape Value:</b> High</p> <p><b>Landscape Sensitivity:</b> High</p> <p><b>Landscape Importance:</b> Regional</p>	<p><b>Landscape Character Area 15 South West Lowlands (7km):</b> <i>'The area is characterised by rolling hills interspersed with beech copses and well-wooded hedgerows dividing rough pasture. The main transport routes are the N4 from Enfield to Kinnegad and the Royal Canal (a tourist route). This is one of the more remote areas of Meath'...</i> <i>'Pasture farmland is dominant although there is rough pasture in the upland areas interspersed with a mix of woodland plantations, small copses and scrubby woodland more prevalent in the south west.'</i></p> <p><i>'Hill of Down is a small attractive village on the Royal Canal.'</i> <i>'The landscape comprises rolling lowland dissected by the canal and areas of reeds and wetland. This LCA is well vegetated with wooded hedgerows and mature trees'</i></p>



Landscape Character Value and Sensitivity of the Wider Study Area (5-10km)	
<p><b>Wind Energy Designation:</b> Medium Capacity</p>	<p><i>‘Views within this area are generally limited by the complex topography and mature vegetation except at the tops of drumlins and from bridges crossing the Royal Canal where panoramic views are available’</i></p> <p><b>Wind Energy Designation: Medium potential capacity</b> to accommodate wind farms or single turbines because <u>views within this LCA are generally short range and limited by topography and vegetation so there are opportunities for choosing locations where visual impacts are minimal.</u></p>
<p><b>Landscape Character Area 6: Central Lowlands</b> (6km)</p> <p><b>Landscape Value:</b> High</p> <p><b>Landscape Sensitivity:</b> Medium/Moderate</p> <p><b>Landscape Importance:</b> Regional</p> <p><b>Wind Energy Designation:</b> Low Capacity</p>	<p><b>Landscape Character Area 6 Central Lowlands</b> (6km): <i>‘Large lowland landscape area composed of rolling drumlins interspersed with numerous large estates and associated parkland. Thick wooded hedgerows, with some conifer plantations, and shelter belts of ash and larch, separate medium to large fields.’ ‘enclosed rural road corridors.’ ‘The main transport routes are those radiating from Trim including the R154 to Athboy–Dunboyne.’</i></p> <p><i>‘built fabric consists of scattered dwellings, with concentrations of residential dwellings present adjacent to arterial routes within the vicinity of larger villages such as Longwood and Ballivor.’</i></p> <p><i>‘Views within this area are generally limited by the complex topography and mature vegetation’</i></p> <p><b>Wind Energy Designation:</b> This LCA would have <b>low potential capacity</b> to accommodate wind farms due to the high number of receptors but medium potential capacity to accommodate single turbines because <u>extensive views could be more easily limited by vegetation and through careful location.</u></p>
<p><b>Landscape Character Area 20: Blackwater Valley</b> (9.5km)</p>	<p>Marginally within this section of the study area (9.5km). Description and key features more applicable to wider study area – defined below (10-20km).</p>
<p><b>Landscape Character Area 7: Loughcrew and Slieve na Calliagh Hills</b> (8km)</p>	<p>Located around the border of this section of the study area (8km), with defining (Loughcrew) features located at additional distance (10.5km). Description and key features more applicable to wider study area – defined below (10-20km).</p>
<p><b>Landscape Character Area 16: West Navan Lowlands</b> (9.3km)</p>	<p>Marginally within this section of the study area (9.5km). Description and key features more applicable to wider study area – defined below (10-20km).</p>
<b>Non-designated considerations</b>	
<p><b>Visibility</b></p>	<p>At the 7-10km distance from the site, the visibility begins to be interspersed with areas of no visibility, particularly to the northwest and west, where there is a patch of no visibility north of Crossakiel. In contrast, the southwest maintains the central study area visibility pattern of full visibility with small, scattered areas of limited visibility. These areas of potential visibility are likely further screened by existing vegetation, reiterated by the visibility described within the Meath LCA descriptions: <i>‘Views within this area are generally limited by the complex topography and mature vegetation.’</i> Six viewpoints within this part of the study area represent how these landscape character areas present visually. To the north, VP3, VP4, and VP11 are within Meath LCA 17. To the southern border of this LCA with Meath LCA 18 (Central Lowlands) is VP24. To the northwest, VP6 is located within Meath LCA 8, Lough Sheelin Uplands, on the shore of Lough Bane.</p>
<p><b>Landscape</b></p>	<p>Within this section of the study area, the variety of the wider landscape begins to become apparent, with the upland areas and loughs to the west of the study area contrasting with the level river landscapes to the east. The higher sensitivities applied to these (hill and lake) LCAs within their respective county development plans reflect the amenity and natural value, in particular to the west and northwest of the site.</p>



Landscape Character Value and Sensitivity of the Wider Study Area (5-10km)	
<b>Land use precedent</b>	No existing turbines are located within 5-10km of the proposed wind turbines. However, there are permitted/in-planning developments for cumulative consideration within this part of the study area, which will be addressed in the cumulative section as it is not currently existing/operational.

10.104 In summary, the study area within 5-10km of the site is deemed to have **Medium** sensitivity to wind development based on the combination of landscape and landscape policy values.

## Wider Study Area (10-20km)

10.105 There are multiple instances where a Landscape Character Area is located in the periphery of the study area, in these cases, full description is abbreviated to include only the sections which refer to aspects within the study area.

**Table 10-14: Landscape Character Value and Sensitivity of the wider Study Area (10-20km)**

Landscape Character Value and Sensitivity of the Wider Study Area (10-20km)	
Landscape Character and Wind Designations (Co. Westmeath)	
<b>Landscape Character Area 3: River Deel and Lowlands</b>	<b>Character Area 3 River Deel and Lowlands Description:</b> As above.
<b>Landscape Character Area 1: Northern Hills and Lakes</b>	<b>Character Area 1 Northern Hills and Lakes Description:</b> As above.
<b>Landscape Character Area 4: Central Hills and Lakes</b>	<b>Character Area 4 Central Hills and Lakes Description:</b> As above.
<b>Landscape Character Area 5: Royal Canal Corridor (c. 15km south of site)</b>	<p><b>Character Area 5 Royal Canal Corridor Description:</b></p> <p><i>'The Royal Canal has been a historic feature of the Westmeath landscape since the early 1800's, flowing east to west through the county and is an important amenity feature. The canal flows through low-lying areas with the surrounding corridor typified by grassland, peatland and some areas of conifer plantation.'</i></p> <p><i>'The canal corridor includes features of vernacular architecture and industrial heritage such as stone bridges, lock keeper's cottages, lock gates and milestones which enhance the waterway. Westmeath County Council in cooperation with Waterways Ireland and funding from the Department of Transport, Tourism and Sport have developed a 47.6km length of the Royal Canal towpath as a walking and cycling route which extends to the County boundaries of Meath and Longford.'</i></p>
<b>Landscape Character Area 10: Lough Ennell and South Eastern Corridor (c. 16km south of site)</b>	<p><b>Character Area 10 Lough Ennell and South East Corridor Description:</b></p> <p><i>This Character Area comprises pasture land of mixed productivity. This area has a large number of old demesnes, which are easily recognisable in the landscape with the existence of fine mature hardwood trees and estate walls in some cases. The N52 By-Pass has also added to the transport corridor around Mullingar.</i></p> <p>This area is located in the far southeast of the study area, and as such the full description is abbreviated to include only the sections which refer to aspects within the study area.</p>
<b>Landscape Character Area 2: Inny River and Lowlands (c. 16km west)</b>	<p><b>Character Area 2 Inny River Lowlands Description:</b></p> <p><i>The Inny River Lowlands cover the low-lying ground around the Inny River from Finnea to Ballynacarrigy and the Royal Canal including pastoral landscapes, extensive areas of cutaway bog, industrial peat production and</i></p>

Landscape Character Value and Sensitivity of the Wider Study Area (10-20km)	
	<p>conifer plantations. This area also includes the N4 corridor and wetland areas of nature conservation interest such as Glen Lough, Lough Iron, Lough Garr and Garriskil Bog. The area contains some preserved views including a panoramic view of the countryside looking northwest from the N4 near Bunbrosna, panoramic views of Lough Iron and the surrounding countryside at Balrath and views of Glen Lough.</p> <p><i>‘A number of fine historic houses and demesnes also occur in this area. Given the rich archaeological and cultural heritage within this area, considerable potential exists to capitalise upon this asset and develop the River Inny basin as a nature conservation and biodiversity area. This would involve exploring the potential of developing a blueway along the River Inny.’</i></p>
<p><b>Wind Energy Designation/ Sensitivity</b></p> <p><b>Westmeath Map 69:</b> Low Wind Energy Capacity</p>	<p><b>Westmeath Wind Energy Designation:</b> As with the site itself, the sections of the central study area located within Co. Westmeath are classed as having ‘Low’ Wind Energy Capacity.</p>
Landscape Character and Wind Designations (Co. Meath)	
<p><b>Landscape Character Area 19:</b> Loughcrew and Slieve na Calliagh Hills (8km)</p> <p><b>Landscape Value:</b> Exceptional</p> <p><b>Landscape Sensitivity:</b> High</p> <p><b>Landscape Importance:</b> National/International</p> <p><b>Wind Energy Designation:</b> No capacity</p>	<p><b>Landscape Character Area 19 Loughcrew and Slieve na Calliagh Hills (8km):</b></p> <p><i>‘The rolling lowlands to the south of Loughcrew are an attractive patchwork of regular shaped, medium-sized fields divided by hedgerows and trees. To the north there are small areas of broad-leaved woodland and rough scrub but few hedgerows. Fields are generally larger/enlarged by loss of some field boundaries. Towards Oldcastle distinctive drystone walls, thick and pale in colour from the local limestone, become a key feature.’</i></p> <p><i>The landscape to the west of Loughcrew has a demesne character with lots of parkland trees, demesne walls fringing roads, beech avenues and woodland copses. A number of large estate houses are nestled amongst the drumlins. There are some modern houses on the southern approach to Oldcastle which are at odds with the towns otherwise contained form and which frequently have ornamental conifers planted around their boundaries. The landscape here is becoming less well managed and the condition of field boundaries – hedgerows and trees – is in decline.</i></p> <p><b>Wind Energy Designation: No potential capacity</b> for wind turbines due to the historic significance, relative remoteness and unspoilt nature of this LCA, particularly its hilltops.</p>
<p><b>Landscape Character Area 20:</b> Blackwater Valley (9.5km)</p> <p><b>Landscape Value:</b> Very High</p> <p><b>Landscape Sensitivity:</b> High</p> <p><b>Landscape Importance:</b> Regional</p> <p><b>Wind Energy Designation:</b> Medium to Low</p>	<p><b>Landscape Character Area 20 Blackwater Valley (9.5km):</b> <i>The River Blackwater is one of the two main rivers in Meath, the other being the Boyne. It flows from Navan to the west of the County through a pastoral landscape. The topography of the river corridor changes from being relatively flat around Navan to low undulating drumlins beyond Kells. This is an attractive landscape character area, rich in visible historic features including demesne landscapes, castles, churches, earthworks and vernacular features such as stone bridges.</i></p> <p><b>Wind Energy Designation:</b> <i>Medium to low potential capacity to accommodate wind turbines because there are frequent extensive views across open countryside in this LCA which are generally unspoilt by built development.</i></p>
<p><b>Landscape Character Area 16:</b> West Navan Lowlands (9.3km)</p>	<p><b>Landscape Character Area 16 West Navan Lowlands (9.3km):</b></p> <p><i>‘This is a flat lowland farmland landscape interspersed with many large estate landscapes with associated parkland, which extends from the west of Navan</i></p>

Landscape Character Value and Sensitivity of the Wider Study Area (10-20km)	
<p><b>Landscape Value:</b> Moderate</p> <p><b>Landscape Sensitivity:</b> Medium/Moderate</p> <p><b>Landscape Importance:</b> Local</p> <p><b>Wind Energy Designation:</b> Medium Capacity</p>	<p>to Athboy. There are 2 main transport routes –the N51 from Navan to Delvin, Co. Westmeath and the R154 from Trim to Athboy. Built development consists of scattered groups of detached dwellings and large estate houses in the hinterland with extensive ribbon development on the outskirts of Athboy and Dunderry.’</p> <p>‘Further west the landscape becomes more complex, with mixed woodland and coniferous plantations, surrounding Athboy and Rathcairn (Gaeltacht). The landscape here is more remote with estate landscape giving way to rougher mixed pasture and areas of scrappy woodland. The field patterns are medium sized with the exception of some larger arable fields. They are enclosed, divided by well-wooded hedgerows and traversed by enclosed rural roads with deep drainage ditches.</p> <p>Although the topography of this area is relatively flat, the wooded nature of the landscape restricts views, which are limited to those along enclosed rural road corridors.’</p> <p><b>Wind Energy Designation: Medium capacity</b> to accommodate wind farms or single turbines because views are often restricted and potential opportunities exist to locate such development in non-visually prominent locations.</p>
<p><b>Landscape Character Area 3:</b> North Navan Lowlands (14km)</p> <p><b>Landscape Value:</b> Moderate</p> <p><b>Landscape Sensitivity:</b> Medium/Moderate</p> <p><b>Landscape Importance:</b> Regional</p> <p><b>Wind Energy Designation:</b> Medium Capacity</p>	<p><b>Landscape Character Area 3 North Navan Lowlands (14km):</b> A large area of agricultural land to the north of Navan contained in the east and west by the Rivers Blackwater and Boyne respectively and to the north by a more complex hilly landscape along the north Meath border (LCA1). Overall, this landscape character area is in a degraded condition. It comprises of a mixture of pasture and arable fields that have been enlarged by loss or removal of traditional boundaries, now often consist of post and wire or timber fences and drainage ditches along road corridors.</p> <p>This area is well served by transport routes and infrastructure because its proximity to Navan and Kells: the N52 and several regional roads all traverse this character area. Road corridors often have quite an open character but hedgerows are usually well maintained.</p> <p>A railway also crosses through the centre of this area from north to south and provides potential connections between Drogheda, Navan and Kingscourt. The railway line is not a very prominent part of the landscape character but it does form a well-wooded spine through the centre of this area and is most visible at level crossings with the road network.</p> <p><b>Wind Energy Designation: Medium potential capacity</b> to accommodate the development of windfarms and individual turbines because there are few long-range views except to the adjacent LCA. The number of viewers of such development would be relatively high but their proximity to several large urban areas is likely to lower their sensitivity. The presence of buried archaeology and upstanding historic features is a potential constraint on the location of wind turbines.</p>
<p><b>Landscape Character Area 5:</b> Boyne Valley (15.8km)</p> <p><b>Landscape Value:</b> Exceptional</p>	<p><b>Landscape Character Area 5 Boyne Valley (15.8km):</b> The landscape in the Boyne Valley is characterised by a steep river valley with areas of rolling lowland adjacent to the River Boyne. It runs from Carbury, Co.Kildare, north-eastwards, winding it’s way through the landscape to the sea at Drogheda. It is arguably the most significant and highly valued landscapes in the county because it contains the Bru na Boinne World Heritage Site. This LCA also includes the heritage towns of Trim and Slane.</p>

Landscape Character Value and Sensitivity of the Wider Study Area (10-20km)	
<p><b>Landscape Sensitivity:</b> High</p> <p><b>Landscape Importance:</b> International</p> <p><b>Wind Energy Designation:</b> Low Capacity</p>	<p>(Slane is located outside of the study area, Bru na Boinne, the key site of the Boyne Valley, is located c. 39km to the west, 19km outside the 20km study area)</p> <p><i>Trim is a large historic town and one of Meath's primary historic settlements. Trim Castle and Talbot Castle dominate the skyline, with the River Boyne and flood plain providing public open space and a picturesque setting for the town. The town centre is attractive with modern development success fully integrated into the historic built environment, particularly Trim Courthouse.</i></p> <p><i>The valley is steeply sided with large rolling hills providing good vantage points and views across the valley. Pasture farmland is predominant in the rolling lowland with areas of poorly drained marshland adjacent to the River Boyne.</i></p> <p><b>Wind Energy Designation: Low potential capacity</b> to accommodate wind turbines due to the significant visual impact of such development within the valley or adjacent to the river corridor and its setting</p>
<b>Non-designated considerations</b>	
<b>Visibility</b>	<p>Visibility over the wider study area is varied, with the north/northwest features a large area with no potential visibility, while the southeast features generally full visibility on the ZTV mapping. There are transitional areas between these two extremes to the northeast and southwest of the study area. Kells, Kilcullen, and the loughs to the west of the study area show intermittent visibility, which reduces the viewer's distance from the site. As with the other sections of the study area, and referred to within the LCA descriptions, the details of visibility allowed for by vegetation and structures are often much reduced. Roads are generally lined with walls or vegetation and tree-lined hedgerows across much of the study area. Views located within the wider (10-20km) study area in Meath include VP1, within 'Loughcrew and Slieve na Calliagh Hills' LCA, VP2 located within the Blackwater Valley LCA, VP27 within the West Navan Lowlands LCA, VP32 within the Boyne Valley LCA at Trim, VP33 is located within the Central Lowlands LCA, and VP35 is within the South West Lowlands LCA. Within Westmeath, VP34 is located on the Royal Canal, VP30 in the Central Hills and Lakes LCA, while VP5 is within the Northern Hills and Lakes.</p>
<b>Landscape</b>	<p>As with the visibility, the character of the study area differs from north/west to south/east. There are two areas designated 'Exceptional' (e.g. highest) landscape value within this part of the study area (Meath LCA 19 Loughcrew and Slieve na Calliagh Hills, Meath LCA 5 Boyne Valley); the only key features within both these LCAs and the study area for which the LCAs are valued so highly is only located within the study area within LCA 19 – Loughcrew. Therefore, while the sensitivity of the Boyne Valley is considered, the overall value and sensitivity is reduced within the context of this proposal.</p>
<b>Land use precedent</b>	<p>There are no existing turbines located within this part of the study area. However, as introduced above, there is potential cumulative in the form of proposed/in-planning wind energy developments in the wider study area. In addition to those included 5-10km from the proposed development site, the remainder of the proposed (in planning) Ballivor scheme is located in the southern section of the wider study area, with the nearest proposed wind turbine c.12km southeast of the Proposed Development. As mentioned above, Ballivor is currently in planning as it is not part of the permitted baseline at its current stage but rather a 'potential permitted' baseline (in planning).</p>

10.106 In summary, the wider study area is deemed to have different landscape value from the west to the east, The general west of the study area is Medium-High landscape value and High sensitivity to wind development based on the combination of landscape and landscape



policy values. Meanwhile, the wider east of the study area is deemed to have Medium Landscape value and sensitivity. It should be noted that the identified sensitivity applies to wind development within these areas (as opposed to the site in question).

**Table 10-15: Landscape Value and Sensitivity Summary**

Location	Landscape Sensitivity
Site (0-1km)	<b>Low</b>
Central Study Area (1-5km)	<b>Medium-Low</b>
Wider Study Area (5-10km)	<b>Medium</b>
Wider Study Area (10-20km)	<b>East: High</b> <b>West: Medium</b>

## Magnitude of Potential Landscape Impacts (Wind Farm)

10.107 The physical landscape as well as the character of the central Study Area (<5km) is affected by the proposed wind turbines as well as ancillary development such as Access Tracks, Turbine Hardstands, Temporary Construction Compound, Permanent Operations Compound, grid connection and proposed borrow pits. By contrast, for the wider landscape of the Study Area, landscape impacts relate exclusively to the influence of the proposed turbines on landscape character. The aspects of the Proposed Development that are likely to have an impact on the physical landscape and landscape character are described in **Chapter 2**.

### Construction

10.108 It is considered that the Proposed Development will have a modest physical impact on the landscape within the site as none of the Proposed Development features have a large 'footprint' and current landcover is generally modified through the management of farmland and woody vegetation. The topography and land cover of the Proposed Development Site will remain largely unaltered with construction being limited to Access Tracks, Turbine Hardstands, Temporary Construction Compound, Permanent Operations Compound and proposed borrow pits. Excavations will tie into existing ground levels and will be the minimum required for efficient working. Any temporary excavations or stockpiles of material will be re-graded to marry into existing site levels and reseeded appropriately in conjunction with advice from the project ecologist.

10.109 The finalised internal Access Track layout has been designed to take advantage of the existing road and track network within the surrounding landscape. The track network has also been designed to avoid environmental constraints, and every effort has been made to minimise the length of new internal roadways. There will be an intensity of construction stage activity associated with the turbine access tracks and turbine hardstands consisting of the movement of heavy machinery and materials, but this will be temporary/short term in duration and transient in location. The construction stage effects on landscape character from these activities will be minor.

10.110 There is one proposed 110 kV off-site substation constructed on the outskirts of Clonmellon. This substation is to collect the generated power from the Proposed Development before connecting to the grid as outlined in **Chapter 2**. The details of the substation Landscape Impacts are addressed below. All grid connections proposed along road corridors will be trenched under the existing road network. Once each section of cable route has been laid, the road surface will be re-laid to existing or improved standards and aside for occasional



surface joint bays there will be almost no surface expression from the underground cable network.

- 10.111 All proposed internal site cabling will be underground and will follow site access tracks without the need for trenching through open ground. Indeed, the land cover of the site will only be interrupted as necessary to build the structures of the proposed wind farm and to provide access. Impacts from land disturbance and vegetation loss at the site are considered to be modest in the context of this varied farmland and wooded setting.
- 10.112 Site activity will be at its greatest during the construction phase due to the operation of machinery on site and movement of heavy vehicles to and from site. This phase will have a more significant impact on the character of the site and cable routes than the operational phase, but it is a 'short-term' impact that will cease as soon as the Proposed Development is constructed and becomes operational (approximately 18-24 months from the commencement of construction).
- 10.113 There will be some long term/permanent construction stage effects on the physical landscape in the form of turbine foundations and hardstands, access tracks and a substation, but only the substation is proposed to remain in perpetuity as part of the national grid network. It is likely that with the exception of residually useful access tracks, all other development features will be removed from the site and it will be reinstated / restored to the prevailing land cover as part of the proposed decommissioning process. Thus, the construction stage landscape effects of the Proposed Development are largely reversible.
- 10.114 There will be some construction stage effects on landscape character generated by the intensity of construction activities (workers and heavy machinery) as well as areas of bare-ground and stockpiling of materials as identified in the Construction and Environmental Management Plan (CEMP). Such effects will be temporary/short term in duration and are, therefore, not considered to be significant. Overall, construction stage landscape effects are considered to be of a High-medium magnitude within the site and its immediate surrounds (<1km), diminishing to Medium and Low thereafter as ground-level construction activities become screened by intervening terrain and vegetation leaving the emerging turbines as the only noticeable element to influence landscape character.

## Operational Stage Effects on Landscape Character

- 10.115 For most commercial wind energy developments, the greatest potential for landscape impacts to occur is as a result of the change in character of the immediate area due to the introduction of tall structures with moving components. Thus, wind turbines that may not have been a characteristic feature of the area become a new defining element of that landscape character. In this instance, wind turbines are not a characteristic feature of the study area, however they will be discussed in the cumulative section due to being permitted and in planning.
- 10.116 The proposed wind farm relates to the receiving landform in the clusters of turbines, located over localised rolling landform, within the context of the Central Study Area. However, there is a fine mesh of different land-uses, built form and connectivity across the surrounding landscape. Although the Proposed Development represents an increased scale and intensity of built development than currently exists within and around the site, this is mitigated somewhat by the turbines being located in a varied and often wooded/forested landforms, with four of the turbines located within taller vegetation, and four located in variable pasture adjacent to these woodland areas. This results in operations stage effects of High-Medium on the immediate surrounds, rapidly reduced to Medium and Low-Negligible with distance.

## Decommissioning

- 10.117 It is important to note that in terms of duration, this Proposed Development represents a long term, but not permanent, impact on the landscape and is reversible. The lifespan of the project is 35 years, after which time it will be dismantled, and the landscape reinstated to prevailing conditions. Within 2-3 years of decommissioning there will be little evidence that a wind farm ever existed on the site.
- 10.118 The decommissioning phase will have temporary impacts similar to those of the construction phase with the removal of large turbine components away from the site. There may be a minor loss of roadside and trackside vegetation that has grown during the operational phase of the project, but this can be reinstated upon completion of decommissioning. Areas of hard standing that are of no further use will be reinstated and reseeded to blend with the prevailing surrounding land cover of the time. It is expected that the decommissioning phase will be completed within a period of approximately three months.
- 10.119 In summary, there will be physical impacts on the land cover of the site as a result of the Proposed Development during the operational phase, but these will be relatively minor in the context of this productive rural landscape that comprises a mixture of land uses, principally extensive areas of commercial conifer forest. The scale of the Proposed Development will be well assimilated within its landscape context without undue conflicts of scale with underlying land form and land use patterns. For these reasons the magnitude of the landscape impact is deemed to be High-medium within the site and its immediate environs (c.1km), reducing to Medium for the remainder of the central Study Area. Beyond 5km from the site, the magnitude of landscape impact is deemed to reduce to Low and Negligible at increasing distances as the Proposed Development becomes a proportionately smaller and integrated component of the overall landscape fabric.

## Significance of Potential Landscape Effects (Wind Farm)

- 10.120 The significance of landscape impacts is a function of landscape sensitivity weighed against the magnitude of landscape impact. This is derived from the significance matrix (**Table 10-3**) used in combination with professional judgement. The combinations of sensitivity and magnitude are summarised for the proposed wind farm development in **Table 10-16** below and address the highest levels of anticipated impact for each of the identified landscape units, i.e, the closest and most impacted portions.
- 10.121 In terms of the significance of landscape effects for the proposed wind farm, combining a Low sensitivity judgement for the Proposed Development Site and a High-Medium magnitude of operational stage landscape impact is considered to result in a Moderate significance of landscape effect. This is because the magnitude of impact will be marginally higher near the end of the construction phase when the main structures have emerged, and construction machinery/workers are still on site, but given the short-term duration, these effects are not considered to give rise to a higher overall significance judgement.

**Table 10-16: Significance of Potential Landscape Effects**

Location	Landscape Sensitivity	Magnitude of Landscape Impact	Significance of Landscape Impact
Site (0-1km)	Low	<b>Construction &amp; Decommissioning Stage: High-Medium</b>	Moderate/ Negative/ Short term
		<b>Operational Stage: High-Medium</b>	Moderate-Slight/ Negative/ Long term
Central Study Area (1-5km)	Medium-Low	<b>Construction &amp; Decommissioning Stage: Medium</b>	Moderate/ Negative/ Short term
		<b>Operational Stage: Medium</b>	Moderate-Slight/ Negative/ Long term
Wider Study Area (5-10km)	Medium	<b>Construction &amp; Decommissioning Stage: Low</b>	Slight / Negative/ Short term
		<b>Operational Stage: Low</b>	Slight / Negative/ Long term
Wider Study Area (10-20km)	East: High West: Medium	<b>Construction &amp; Decommissioning Stage: Low-negligible</b>	Slight-imperceptible/ Negative/ Short term
		<b>Operational Stage: Low-negligible</b>	Slight-imperceptible/ Negative/ Long term

10.122 The significance of impact rapidly reduces with distance from the Proposed Development as the landscape character is progressively less influenced by the Proposed Development as the construction stage impacts are localised and in the long term, where the proposed turbines are visible, they are included as a background feature, separated by intervening land uses.

## Landscape Character Value and Sensitivity (Substation)

10.123 Landscape value and sensitivity are considered in relation to a number of factors highlighted in the Guidelines for Landscape and Visual Impact Assessment 2013, which are set out below.

**Table 10-17: Landscape Character of Substation Site (<1km)**

Landscape Character Analysis of Substation site and immediate surrounds	
<b>Landscape Character and Wind Designations (Co. Westmeath)</b>	
<b>Landscape Classification: Landscape Character Area 3: River Deel and Lowlands</b>	<p><b>Character Area 3 River Deel and Lowlands Description:</b>  <i>The River Deel, the Stonyford River and their hinterlands form this landscape character area typified by <b>low-lying pasture</b> punctuated with small lakes which are flanked by scrub and wet woodland. These rivers form part of the River Boyne and Blackwater SAC complex. The area east of Delvin and running south along the Meath Border is characterised by cutover, cutaway bogs and small tracts of intact bog.</i></p> <p><i>Settlements within this area include <b>Clonmellon</b>, Delvin, Killucan-Rathwire and Raharney which are located within the eastern commuter belt to Dublin. This part of the county has a strong historic landscape component with several demesne landscapes occurring within the area. Two main road corridors the</i></p>

Landscape Character Analysis of Substation site and immediate surrounds	
	<p><i>N51 and <b>N52 traverse the area.</b> A number of quarries are also operational in the area.</i></p> <p>The site itself is not located within this landscape character area, with Westmeath border located along the hedgerow which forms the eastern border of the site, and is consistent with this description, typified by undulating rural areas punctuated by the built form and associated development of Clonmellon. The N52 is also located 500m to the east of the site boundary. The key components of the above description, as they relate to the landscape character surrounding the substation are <b>bolded</b>. A number of the qualities listed in the LCA description accurately describe the area located within Co. Meath also (small lakes, river corridors), however these are addressed within the below LCA description from within the Meath Landscape Character Assessment.</p>
Landscape Character and Wind Designations (Co. Meath)	
<p><b>Landscape Character Area 17:</b> South West Kells Lowland</p> <p><b>Landscape Value:</b> Moderate Value</p> <p><b>Landscape Sensitivity:</b> Medium</p> <p><b>Landscape Importance:</b> Local</p>	<p><b>Character Area 17 South West Kells Lowlands Description:</b> <i>'A large rural area characterised by <b>rolling lowland farmland with remnants of parkland landscapes</b>... ..The southern part of this LCA is similar to the western part with areas of parkland but more coniferous plantations.</i></p> <p>Described as:</p> <p><i>'Moving westwards the countryside is attractive but not in optimum condition and is characterised by <b>low undulating fields that have been enlarged through loss of traditional boundaries.</b> In many places hedgerows and drystone stone walls have been replaced by post on wire-fences on earth banks. <b>Remaining boundary features are often poorly managed or in disrepair.</b> There are a number of large estate farms in this area and remnants of estate houses which have been lost, e.g. parkland/avenue trees and ornate entrance gates along the road corridor'</i></p> <p>(Extracted from the full description within Co. Meath Landscape Character Assessment)</p>
Other Designations	
<b>Monuments Service</b>	<p>Directly to the west of the site is the National Monuments Service feature ME01112, which identifies a clearly visible Rath feature to the west of the site.</p> <p>Described as: <i>Situated on a rise in an undulating landscape. This is a raised and grass-covered subcircular area (dims 51m ENE-WSW; c. 40m NW-SE) defined by an earthen bank (at ENE: Wth 11m; int. H 0.5m; ext. H 1m) separated by a slight fosse (at ENE: Wth of top 8.5m; Wth of base 2m; ext. D 0.3m) from an outer earthen bank (at ENE: Wth of base 9m; ext. H 1.2m) with some bushes NW-NE. The inner bank morphs into a scarp (at WSW: Wth 5m; H 1.7m) and the fosse into a berm (at WSW: Wth 7.5m) defined by the outer bank that has morphed into another scarp (at WSW: Wth 7m; H 1.6m) NE-S-WSW. There are traces of a third bank (at WSW: Wth 5m; ext. H 1m) S-WSW that is incorporated into a NNE-SSW field bank WSW-NW. The widened entrance through the inner (Wth of base 10m) and outer (Wth of base 10m) banks is at ESE. The E quadrant of the interior has old quarry pits.</i></p>
Non-designated considerations	
<b>Visibility</b>	<p>The proposed substation is highly enclosed from the east, including the National Road and from within Clonmellon. To the south, visibility is patchy and reliant on roadside vegetation. The west of the site may have opportunities for visibility but is relatively unpopulated, while the north has similar potential for visibility; however, it also features a local road with several residences. There are a number of partial hedgerows between the site and the wider landscape to the north and west.</p>

Landscape Character Analysis of Substation site and immediate surrounds	
<b>Landscape</b>	As noted above, the site and immediate surroundings relate to sections of the Landscape Character Area descriptions, but there are elements that occur more clearly to the west of the site (e.g., the N52 and the settlements of Clonmellon). The immediate surrounding area of this Proposed Development encompasses much of the more generally described Westmeath Landscape Character Area 3. It is consistent with the Co. Meath description of the surrounding landscape, identified as Meath LCA 17.
<b>Land use precedent</b>	There is not an existing substation or similar structure located within the site itself, or adjacent, however, there are a number of built features immediately to the east of the Proposed Development. Cumulative effects will likely be limited by the transitional context and the screening provided by existing vegetation, in particular, the established hedgerow to the east of the site.

10.124 In summary, the substation site and immediate surroundings are deemed to have Medium-Low landscape sensitivity and value. The site is located at the periphery of an existing population centre focused around a national road junction. As such, most of the 'town' is located west of the junction, with the main street with shops and food establishments along the N52 to the west. However, the eastern side of the junction is occupied by residential estates, a business park, and the local GAA, all of which are separated from the site and contained by tree-d hedgerows. The site's north, south and west share similar landscape patterns, with rolling rural fields lined by irregularly managed boundaries. The landform slopes down slightly to the west before rolling away to the north and west. There is a slight increase in sensitivity due to the presence of a heritage feature to the west of the site.

## Magnitude of Potential Landscape Impacts (Substation)

### Construction Stage

10.125 The construction stage landscape impacts from the proposed Substation will be similar to those associated with the Proposed Wind Farm Development but smaller in extent and more intensive within the Proposed Substation Development Site. These will also see physical landscape disturbances of the compound area as well as considerable excavation for the foundations of the main components and buildings. There will be temporary storage of excavated material and building materials, worker facilities and HGVs going to and from the Proposed Substation Site on a regular basis. Given the partially enclosed nature of the proposed substation site within the surrounding terrain and vegetation, much of the ground-level construction stage activity will not be readily visible from the public realm, and this will also reduce the perceived impact on landscape character during the construction stage. The exception to this is the construction of the screening berm and access track, which will occur along the road frontage boundary. However, the main impacts of this will be associated with the presence of machinery, personnel, and exposed earth surface (prior to track surfacing and vegetation of ground surface). The construction phase will last 18-24 months and will, therefore, be a short-term impact deemed of a **Medium** magnitude.

### Operational Stage Effects on Landscape Character

10.126 Once operational (prior to mitigation establishment), the proposed substation and compound will be clearly presented as electrical infrastructure, legibly located at the periphery of an existing settlement. Notwithstanding this, it is an intensification of land use and has the potential to reduce the rural amenity when viewed from the west. However, it is also discreetly placed in its landscape setting such that it will be a notable built addition to the land use mix of the local area, but not an overt visual influence. Once the mitigation



is established, only the upper sections of the permeable, lattice structures will be visible over the budding and vegetation that will be seen, and the density of the site will not be apparent. While it will add to the scale and intensity of built development and is of an industrial character, its visual presence belies the scale of the proposed substation development, and it is considered to have only a **Medium-low** magnitude of landscape impact and only in its immediate context. Beyond approximately 500m-1km, it will not have a notable bearing on landscape character.

## Significance of Potential Landscape Effects (Substation)

10.127 In terms of the significance of landscape effects for the proposed substation development, the combination of a Medium-low sensitivity judgement for its Study Area and a Medium-low magnitude of operational stage landscape impact are considered to result in a Moderate-slight significance of landscape effect. The magnitude of impact will be marginally higher (Medium) near the end of the construction phase when the main structures have emerged, and construction machinery/workers are still on site. Still, given the short-term duration, these effects are not considered to give rise to a higher overall significance judgement. Following mitigation, the landscape impacts are further reduced over time as the vegetation fills in and overlays the manufactured structures with natural form and screening, similar to the variety of wooded areas through the demesne landscapes of the wider context. Additionally, the mitigation will separate the more modern land use from the historic feature to the west.

## Visual Effects

10.128 In the interests of brevity and so that this chapter remains focussed on the outcome of the visual assessment (rather than a full documentation of it), the visual impact assessment at each of the 35 selected representative viewpoint locations has been placed into **Appendix 10.1**. This section should be read in conjunction with both **Appendix 10.1** and the associated photomontage set contained in a separate booklet accompanying the **EIAR Volume 4**. A summary table is provided below, which collates the assessment of visual impacts (**Table 10-18** below). A discussion of the results is provided thereafter.

**Table 10-18: Summary of Visual Impact Assessment at Representative Viewpoint Locations (refer to Appendix 10.1 Visual Impact Assessment)**

VP No.	Distance to nearest turbine	Visual Receptor Sensitivity	Magnitude of Visual Impact	Visual Impact Significance
VP1	10.5km	Very High	Low	Moderate-slight/ Negative/ Long-term
VP2	12.5km	Very High	Low-Negligible	Moderate-slight/ Negative/ Long-term
VP3	5.7km	Medium-low	Low	Slight/ Negative/ Long-term
VP4	9.3km	Medium-low	Negligible	Imperceptible/

VP No.	Distance to nearest turbine	Visual Receptor Sensitivity	Magnitude of Visual Impact	Visual Impact Significance
				Neutral/ Long-term
VP5	13km	High	Low-Negligible	Slight/ Negative/ Long-term
VP6	8.2km	Medium	Low	Slight/ Negative/ Long-term
VP7	2.5km	Medium-low	Low	Slight/ Negative/ Long-term
VP8	1km	Medium-low	Medium-low	Moderate-slight/ Negative/ Long-term
VP9	1.6km	Medium-low	Low	Slight/ Negative/ Long-term
VP10	3.7km	Medium-low	Medium-low	Moderate-slight/ Negative/ Long-term
VP11	5.5km	Medium-low	Low-Negligible	Slight-imperceptible/ Negative-Neutral/ Long-term
VP12	1.2km	Medium-low	Medium-low	Moderate-slight/ Negative/ Long-term
VP13	760m	Medium-low	Medium	Moderate / Negative/ Long-term
VP14	800m	Medium-low	Medium	Moderate / Negative/ Long-term
VP15	1km	Medium-low	Medium	Moderate-Slight/ Negative/ Long-term
VP16	1.1km	Medium-low	Low	Slight/ Negative/ Long-term
VP17	2.2km	Medium-low	Low	Slight/

VP No.	Distance to nearest turbine	Visual Receptor Sensitivity	Magnitude of Visual Impact	Visual Impact Significance
				Negative/ Long-term
VP18	1.5km	High-Medium	Medium-Low	Moderate/ Negative/ Long-term
VP19	300m	Medium-low	High	Substantial-moderate/ Negative/ Long-term
VP20	1.2km	Medium-low	Low	Slight/ Negative/ Long-term
VP21	850m	Medium-low	Medium	Moderate-slight/ Negative/ Long-term
VP22	1km	Medium-low	Medium-low	Moderate-slight/ Negative/ Long-term
VP23	400m	High-Medium	High-medium	Substantial-moderate/ Negative/ Long-term
VP24	750m	Medium-low	High-medium	Moderate/ Negative/ Long-term
VP25	1km	Medium	High-medium	Moderate/ Negative/ Long-term
VP26	8km	Medium-low	Negligible	Imperceptible/ Neutral/ Long-term
VP27	10.6km	High	Low-negligible	Slight/ Negative/ Long-term
VP28	2.9km	Medium	Low	Slight/ Negative/ Long-term
VP29	3.3km	Medium-low	Medium	Moderate-slight/ Negative/ Long-term
VP30	16.2km	Medium	Low-negligible	Slight-imperceptible/ Negative-Neutral/

VP No.	Distance to nearest turbine	Visual Receptor Sensitivity	Magnitude of Visual Impact	Visual Impact Significance
				Long-term
VP31	7.4km	Medium-low	Low-negligible	Slight-imperceptible/ Negative-Neutral/ Long-term
VP32	19.7km	Very High	Low-negligible	Slight/ Negative/ Long-term
VP33	18.1km	Medium	Negligible	Imperceptible/ Neutral/ Long-term
VP34	15.9km	High-Medium	Negligible	Imperceptible/ Neutral/ Long-term
VP35	18km	High-medium	Low-negligible	Slight-imperceptible/ Negative-Neutral/ Long-term
SB VP1	500m	Medium-low	Low	Slight/ Negative/ Long-term
SB VP2	600m	Medium-low	Low-negligible	Slight-imperceptible/ Negative-Neutral/ Long-term
SB VP3	50m	Medium-low	Medium-Low	Moderate-slight/ Negative/ Long-term
SB VP4	200m	Medium-low	Low-negligible	Slight-imperceptible/ Negative-Neutral/ Long-term

## Visual Impact Summary

10.129 Visual impacts are summarised by receptor type, based on the primary reason for selecting that view. There are instances where a view is representative of multiple receptor types (e.g. major routes and/or scenic designations and local community views). The quality of impact is considered negative and time period long-term unless otherwise specified.

## Visual Impacts at Key Views

10.130 The 'Key Views' within the study area are VP1, VP2, and VP32. Of these, VP1 and VP2 are more isolated and meet the description of 'viewers who are likely to be in a reflective or recreational frame of mind, possibly increasing their appreciation of the landscape around them', while VP32 is a national heritage feature, the view and location itself are within the

urban extent of Trim, and therefore have slightly lower landscape amenity values. All three of these views are classified as 'Very High' sensitivity.

- 10.131 VP1 at Loughcrew Cairns experiences the highest magnitude of impact (Low), with expansive views across the study area to the south allowing clear views of the Proposed Development with no other vertical features across the horizon or enclosing the view; the residual impact is deemed to be Moderate-slight. In comparison, in VP2, there are trees and other features in the foreground which interrupt the line of the horizon, and the view features more modern landscape features and visible structures. As mentioned above, VP32 is located within an urban environment. The magnitude of impact at VP2 and VP32 is Low-negligible, with a final significance of Moderate-slight at VP2 and Slight at VP32.

## Visual Impacts at Amenity and Heritage Receptors

- 10.132 The study area is well populated with amenity and heritage features, with 22 of the 35 views associating with some degree of amenity/heritage value. The three receptors of highest (national/international) significance are summarised above as 'Key Views'. These are also the highest sensitivity views within this visual assessment, with 'Very high' sensitivity.
- 10.133 The second highest sensitivity views within this assessment, with 'High' sensitivity, are at Fore Abbey (VP5) and the Hill of Ward (VP27), identified as heritage/amenity receptors. VP27/Hill of Ward is also a designated view. Of these, the Hill of Ward has clear, elevated views over the Proposed Development and surrounding landscape; however, these are mitigated by distance, resulting in Low-negligible magnitude and Slight significance. Meanwhile, VP5 is located within the valley surrounding Fore Abbey, with limited visibility and a Low-negligible magnitude, leading to Slight final significance.
- 10.134 In the southern half of the study area, there are two views (VP34 and VP35) along the Royal Canal, which are also designated scenic views. These both have High-medium sensitivity but limited visibility, resulting in Slight-imperceptible/Negative-neutral final significance at VP35 and Imperceptible/Neutral at VP34.
- 10.135 Of the remaining heritage and amenity views, a number are in the surroundings of castles, estate houses and demesnes or feature remnant elements from these sites. These are VP4, VP10, VP16, VP17, VP18, VP22, VP23, VP25, and VP28. VP29 is located adjacent to Delvin Castle but is more representative of the surrounding population centre and main route.
- 10.136 VP23 and VP25 directly relate to the grounds and features of Rosmead House, which includes a historic gate facing the N52 and is close to the southern cluster of five turbines. VP23 is located along the driveway to Rosmead House, where the angle of view turns to reveal the house for the first time, which has cluttered views in close proximity to the Proposed Development, resulting in a High-medium magnitude of impact, resulting in a final significance of Substantial-moderate. VP25, in contrast, is located along the N52 corridor, with direct, clear views from the public realm to the historic 'Smiling Bess' gateway, and consequently features a higher sensitivity of Medium. Combined with a High-medium magnitude of impact due to the Proposed Development being viewed in alignment with the heritage feature, the final significance at VP25 is Moderate.
- 10.137 There is a cluster of three views that relate to Ballinlough Castle and its surrounds: VP16, VP17, VP18 (within the grounds), and VP22. VP16 is more representative of the N52 corridor and, therefore, is discussed below. However, VP17 and VP22 are located at the public periphery of the castle, where landforms and vegetation are similar to those within the castle grounds, and the wooded and walled grounds influence landscape character. Of these, VP22 experiences the highest residual impacts, with Moderate-slight significance, while VP17 experiences slight final significance. VP18 is located within the grounds and, as



such, has High-medium sensitivity and Moderate final significance, with partial visibility equating to a Medium-Low magnitude of impact, mitigated by the wooded surrounds of the grounds.

- 10.138 VP4 and VP10 are located along the N52, with historic residences in the view context. Both are classified with Medium-Low sensitivity, with the highest impacts and degree of visibility (and proximity) at VP10, with Medium-low magnitude of impact leading to Moderate-slight final significance. VP4 is highly screened (Negligible visual impact) and results in the Imperceptible significance of a Neutral quality.
- 10.139 Finally, VP28 is located on the outskirts of Delvin and is also (in addition to heritage features) representative of the R395 and the population centre/local views, resulting in Medium sensitivity. The Proposed Development is partially screened and perceptually separated from the viewer context and, therefore, experiences Low magnitude and Slight final significance.
- 10.140 Isolated heritage features across the remainder of the study area also typically represent population centres, local receptors or transport routes. Those in which the scenic designation is more relevant than the heritage feature are VP33 and VP6. Otherwise, VP7 is a local node with a heritage walk, VP20, which is located along the Táin Trail, both of which experience Slight final significance, and VP21 is located on the local road to the west of the site, which experiences Moderate-slight final significance due to clear visibility to the southern cluster.

## Visual Impacts at Scenic Designations

- 10.141 The study area overlays multiple different counties, with consideration for all scenic designations (including High Amenity Areas). Those which were deemed to be relevant to this assessment (as refined within the main report, above), are represented by VP1, VP2, VP3, VP5, VP6, VP27, VP30, VP32, VP33, VP35. A number of these are representative of a group of designated views, or the combination of scenic views and High Amenity Areas. Additionally, there is overlap between a number of other receptors, primarily 'Key Views' (VP1, VP2, VP32) and 'Heritage and Amenity' (VP5, VP27, VP35) receptors.
- 10.142 Viewpoints where the primary selection was to represent a scenic designation are VP3, VP6, VP30, and VP33. The final significance of these viewpoints ranges from Slight at VP3, VP6, due to the view off centre to the main focus of amenity, and VP30 which is slight-imperceptible (Negative-neutral) due to being long distance and partially screened, to Imperceptible at VP33 which is entirely screened. All of these are located along local roads, however VP3 and VP33 are located near junctions with regional roads.

## Visual Impacts at Major Routes (where not already covered)

- 10.143 Fourteen VPs represent views from major routes as well as other typically more sensitive types of receptors (VP4, VP9, VP10, VP11, VP16, VP19, VP20, VP24, VP25, VP26, VP28, VP29, VP33, VP35). Those that were specifically selected to represent major routes that are not summarised already include VP11, VP16, VP19, and VP24. The highest residual Impact Significance applied to a major route receptor is at VP19, which is the closest viewpoint in this assessment to the proposed turbines. The magnitude of impact is deemed High due to this proximity and resulting visual presence, which follows through to a Substantial-Moderate significance. Given the proximity to the turbines, there is a sense of permeability through the scheme, and as noted in the Wind Energy Guidelines reference on pg 55 that, turbines 'are probably best located away from roadsides allowing a reasonable sense of separation. However, the possibility of driving through a wind energy development closely straddling a road could prove an exciting experience'. Whilst this may

not be the precise context described by the WEDG, it does indicate that the localised dramatic view of a wind farm from a road receptor is not an unacceptable scenario. It should also be noted that roadside vegetation, typical of the N52 corridor, will vary the degree to which the proposed turbines are visible along this section of road. The second highest is Moderate, as experienced at VP24, slightly further south from VP19 as the N52 passes in close proximity to the proposed turbines, and these views are located to the north and south of the array in close proximity. Similarly, VP25 at the Smiling Bess Gateway features a final significance of Moderate, with views through the centre of the proposed array, showing turbines layered into the distance. At VP16, the final significance is Slight. Finally, there is VP11 at the R154, immediately east of the junction with the N52. VP11 features Medium-low sensitivity, Low-negligible magnitude of impact, and Slight-imperceptible final significance of a Negative-Neutral quality. Impacts for VP9, VP26, and VP29 are addressed below as centres of population.

- 10.144 For reference, the views listed above are part of the wider set which represents the N52, which runs along the eastern extent of the site between Clonmellon and Delvin (VP9, VP16, VP19, VP24, VP25). VP9 is included below for Centres of Population, while VP25 is listed above with the heritage and amenity receptors due to framed views of the heritage gate to Rosmead House. It can be assumed that the listed views are somewhat representative of local community views in addition to the Major Route receptors.

## Visual Impacts at Centres of Population

- 10.145 There are three views representative of population centres, all located along national roads as they pass through or in close proximity to population centres. These are VP26, located along the N51 at Athy (east of the study area); VP29, along the N52 at Delvin (south of the site); and VP9, also on the N52, north of the site at Clonmellon. All viewpoints are classified as medium-low sensitivity, with anthropogenic landscapes viewed in the context of a main road corridor. Of these, VP29 (as discussed above) is also representative of heritage and amenity features, located in the centre of Delvin with slightly elevated views and Delvin castle framing the view; however, this is mitigated by the main road corridor and cluttered skyline. Combined with a Medium Impact at VP29, this results in a Moderate-slight significance. In contrast, Clonmellon (VP9) is a smaller population centre; the viewpoint is located at the edge of the developed area and features relatively constrained views. The Proposed Development is viewed off-centre to the road corridor over intervening vegetation, with Low impact and final significance of Slight. Finally, at Athboy, the Proposed Development is generally screened by intervening vegetation of the level landform. The magnitude of impact at VP26 is Negligible, with a final significance of Imperceptible.

## Local Community Views

- 10.146 There are 18 views within this assessment located within 5km of the site (VP7, VP8, VP9, VP10, VP12, VP13, VP14, VP15, VP16, VP17, VP18, VP19, VP20, VP21, VP22, VP23, VP24, VP25, VP26, VP27) of these, five of which were selected primarily for local community views and are not discussed in the context of other receptors above (VP8, VP12, VP13, VP14, VP15). There is another local community viewpoint at a distance of 7.4km (VP31). All six of these views (VP8, VP12, VP13, VP14, VP15, VP31) are designated Medium-low. VP8 and VP12 experience Medium-low impacts, resulting in Moderate-slight final significance, while VP13, VP14 and VP15 feature slightly higher magnitude of Medium, with VP15 experiencing a final significance of Moderate-slight. However, VP13 and V14, which should be interpreted as parts a and b for the immediate local surroundings, to address the northern cluster and southern cluster from the same viewer context, where views of the entire scheme are typically filtered or blocked by surrounding vegetation and built form. These views experience a final significance of Moderate due to the balance

between the near proximity of the turbines and the clear and legible visibility of each cluster from their respective views. The remaining view (VP31) is located southeast of the Proposed Development but is included for cumulative context (as discussed below) at Bracklyn. This view features a Low-Negligible magnitude of impact and Slight-Imperceptible (Negative-Neutral quality) final significance. Other views that the local community views are a key consideration but were discussed above in the heritage and amenity section are two adjacent to local heritage features to the north (VP7) and west (VP21) of the site. Two others are located in the surrounds of Ballinlough Castle and grounds (VP17 and VP22) to the east and south of the site.

## Substation Visual Impacts

10.147 Given the limited number of views and similar landscape context, the Substation views are addressed in their entirety below. Generally, the location of the Proposed Development substation mitigates much of the development's impacts, with limited visibility from the main direction of receptors (Clonmellon). All receptors are rated Medium-Low due to being typical rural views, representative of a local community with a range of land uses in the surrounding area. VP1 is the most separated from Clonmellon, instead located along a local road to the north of the proposed substation; however, there are a number of residences along the road that require representation. Due to the filtered views of the site across multiple fields and the permeable nature of the electrical infrastructure, the Proposed Development does not have a strong visual presence from the north, and following mitigation, the remaining impact is deemed to be low, with a final significance of Slight. In contrast, VP2 and VP4 are located to the east of the site and are representative of the Clonmellon residents in the transitional areas as viewers are moving in and out of the built centre. Both these views are heavily screened by existing vegetation, which only increases following mitigation, limiting views of the proposed substation. As such, VP2 and VP4 experience Low-Negligible impacts, with Slight-imperceptible final significance of a Negative-Neutral quality. Finally, VP3 features the clearest view of the closest proximity to the proposed substation, looking through the existing gateway, which is utilised for site access. Prior to mitigation, the Proposed Development fills the foreground with a complex but permeable mix of small buildings and electrical infrastructure, contained by the compound fencing and separated from the viewer by the new bund. Following mitigation, all views are screened by the woodland planted over the berm, resulting in the key visual impact being the enclosure/ shortening of the view. The inclusion of woodland is in keeping with the surrounding landscape, which has a strong presence of historic houses and associated parkland; as such the impact following mitigation is deemed Medium-Low, which results in a final significance of Moderate-Slight.

## Cumulative Impacts

10.148 The appraisal of cumulative impacts with other wind energy developments is based on the cumulative ZTV maps and wireframes provided below in Figure 10-5. Given the absence of other tall structures within the study area, it is assessed that there is no potential for combination effects with other types of development. The cumulative ZTV map shows the potential for cumulative visibility between the Proposed Development and all other permitted and proposed wind farm developments within the 20km study area. At present, there are no operating wind farms within the study area, however, Bracklyn Wind Farm is a permitted large-scale wind farm development situated in the wider southern half of the study area, some c. 6km south of the site. Situated immediately east of the permitted Bracklyn Wind Farm site, the proposed Ballivor Wind Farm is in planning and awaiting a decision from the Planning Authority at the time of writing. As a result, the cumulative assessment will be broken down into two sections: permitted baseline and potential future baseline. As the proposed Ballivor Wind Farm is still in the in-planning development stage, it will form part

of the cumulative assessment as the potential future baseline. **Table 10-19** contains an analysis of potential cumulative impacts using the wireframe images and photomontage set.

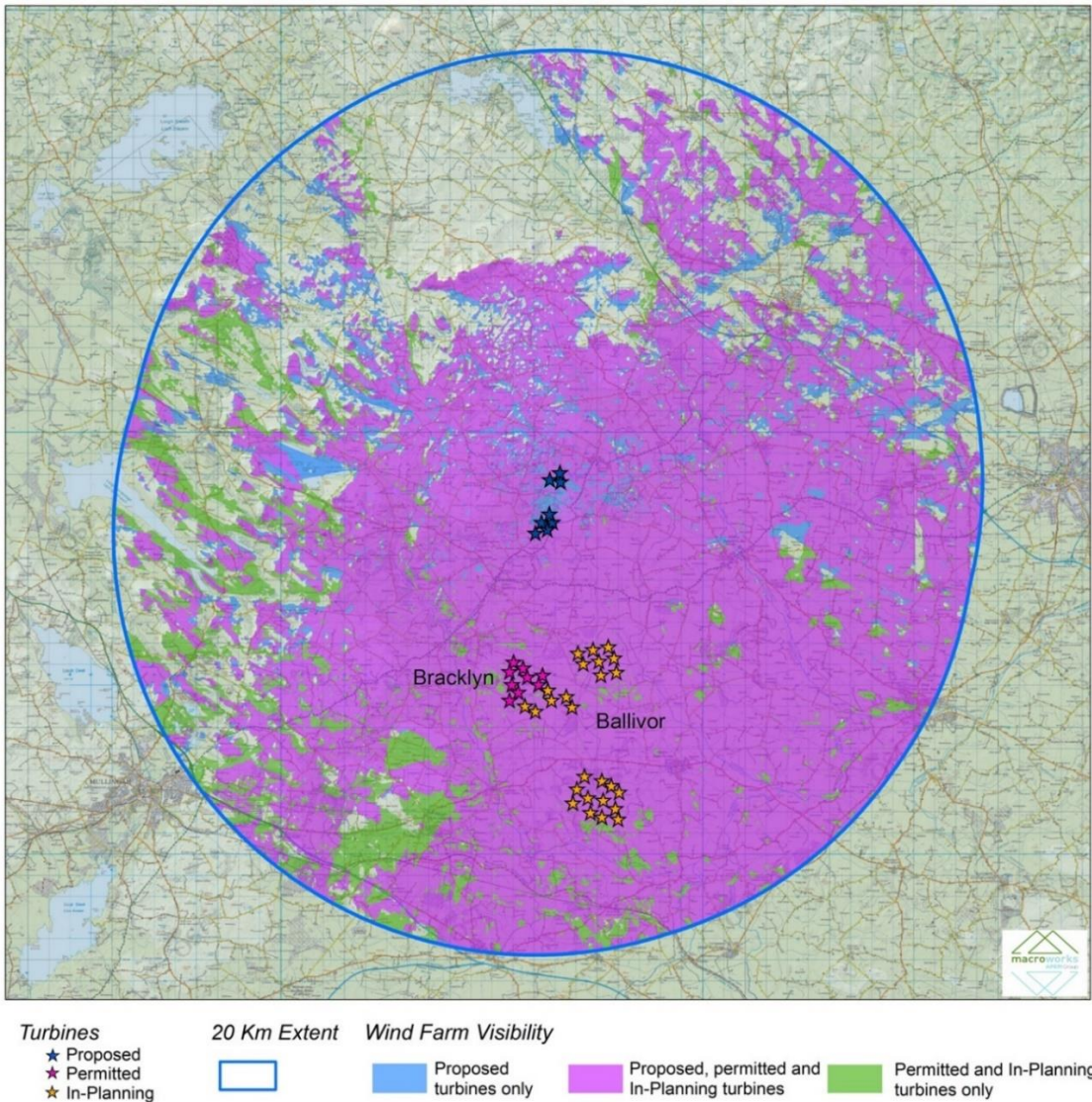
**Table 10-19: Summary of Visual Impact Assessment at Representative Viewpoint Locations (Refer to Appendix 10.1 Visual Impact Assessment)**

VRP Ref.	Number of other wind farms potentially visible (Wireframe)	Nearer or further than the Proposed Development	Combined View (within a single viewing arc - 90°)	Succession View (within a series of viewing arcs from the same location)	Sequential View (view of different developments moving along a linear receptor)
VP1	2	Further	Yes	No	No
VP2	2	Further	Yes	No	No
VP3	2	Further	Yes	No	No
VP4	2	Further	Yes	No	No
VP5	-	-	-	-	-
VP6	2	Further	Yes	No	No
VP7	2	Further	Yes	No	No
VP8	2	Further	Yes	No	No
VP9	2	Further	Yes	No	Yes
VP10	2	Further	Yes	No	Yes
VP11	2	Further	Yes	No	No
VP12	-	-	-	-	-
VP13	2	Further	No	Yes	No
VP14	2	Further	No	Yes	No
VP15	2	Further	No	Yes	No
VP16	2	Further	No	Yes	Yes
VP17	2	Further	No	Yes	No
VP18	2	Further	No	Yes	No
VP19	2	Further	No	Yes	Yes
VP20	2	Further	No	Yes	No
VP21	2	Further	No	Yes	No
VP22	2	Further	No	Yes	No
VP23	2	Further	No	Yes	No
VP24	2	Further	No	Yes	Yes
VP25	2	Further	Yes	No	Yes
VP26	2	Further	Yes	No	Yes
VP27	2	Further	Yes	No	No
VP28	2	Further	No	No	No
VP29	2	Further	No	Yes	Yes
VP30	-	-	-	-	-



VRP Ref.	Number of other wind farms potentially visible (Wireframe)	Nearer or further than the Proposed Development	Combined View (within a single viewing arc - 90°)	Succession View (within a series of viewing arcs from the same location)	Sequential View (view of different developments moving along a linear receptor)
VP31	2	Nearer	Yes	Yes	No
VP32	2	Nearer	Yes	Yes	No
VP33	2	Nearer	Yes	No	No
VP34	2	Nearer	Yes	No	Yes
VP35	2	Nearer	Yes	No	Yes

Figure 10-5: Cumulative Zone of Theoretical Visibility (ZTV) Map



**Cumulative Impact Assessment – Permitted Baseline**

10.149 The degree of cumulative impacts between the Proposed Development and the permitted Bracklyn Wind Farm is dependent on viewer location within the study area. Through the



central study area, cumulative impacts are reduced through the reasonable distance between the two developments, in combination with the flat landscape context in which much of the site and study area are comprised. Whilst some open views are afforded across areas of pasture or localised undulations in landform, much of the central and wider study area affords very little sense of openness due to the dense layers of hedgerow vegetation and mature tree lines that enclosed the agricultural fields throughout the 20km study area.

- 10.150 The highest likelihood of both developments being viewed in combination is from locally elevated parts of the landscape, specifically to the north of the study area. VP1, VP2, and VP3 are examples of this, where slightly elevated broad views are afforded across the wider landscape. Nevertheless, even if the visibility of both developments is afforded from here, both wind energy developments will present as two distinct developments in VP1 and VP2; however, VP3 separation occurs through a sense of distance perspective as the projects are more aligned. Therefore, while the proposed and permitted wind farms are not considered to contribute to a strong sense of wind farm proliferation, the addition of the Proposed Development turbines does add to the proportion of the view currently occupied by wind development. Due to being closer to the viewer in locations such as VP1 and VP2, the Proposed Development has a similar visual envelope, which both balances and compounds the presence of wind energy development across the view.
- 10.151 In terms of sequential, cumulative views, the Proposed Development will theoretically be visible in combination with the Bracklyn Wind Farm along a number of notable linear receptors such as the N51, N52, R156, and potentially along the Royal Canal. Nevertheless, much of the turbine visibility will be limited along the national roads as a large proportion of these corridors are flanked by dense roadside vegetation. Similar to this, much of the Royal Canal corridor is heavily enclosed by dense canal-side vegetation, and therefore there is limited potential for visibility of either development, as can be seen in the photomontage set. Overall, whilst intermittent views of both permitted and proposed developments have the potential to be afforded along some sections of the linear receptors within the study area, these will often be heavily obscured by mature vegetative screening. Consequently, cumulative impacts along these routes are not considered to be significant but rather limited to local views and elevated locations.
- 10.152 Overall, it is considered that the Proposed Development will contribute an additional cumulative effect that is in the order of **Medium-Low** with respect to the impact classification above.

## Cumulative Impact Assessment – Potential Baseline

- 10.153 The inclusion of the in-planning Ballivor development within the cumulative assessment represents a less certain future context as it may or may not be approved and go on to be constructed. The proposed Ballivor Wind Farm is located in close proximity to the permitted Bracklyn Wind Farm and separated from the Proposed Development by a 4.8km distance to the south. Ballivor is approximately 50% larger than the combination of the Proposed Development and the permitted Bracklyn development (by nine turbines) and, therefore, if granted, has the potential to contribute in a considerable manner to the cumulative scenario in this landscape. The combined scale of both the proposed Bracklyn and Ballivor Wind Farms is highlighted in views to the north, in particular VP1 and VP2, where the density and lateral spread of potentially visible turbines has dramatically increased from the above 'Permitted' cumulative scenario as a result of the proposed Ballivor Wind Farm. As opposed to the above scenario, where the Proposed Development and Bracklyn are present in a spaced manner and at a similar scale within the landscape, the developments will appear as a more consolidated group. Whilst elevated views such as these are not commonplace within the wider study area, even from this distance of c. 12km +, the combined view of the developments presents as one of the more prominent land uses in this vast panorama and

has the potential to notably increase the scale and extent of wind energy development within view and rendering it a much more characteristic feature of this midlands land use matrix. Even though these are highly sensitive receptors, they are a considerable distance from the combined wind energy developments, and the turbines are just part of the distant backdrop setting within the rural plains rather than an intrusion on the immediate heritage landscape. Consequently, cumulative impacts are not assessed to be significant.

- 10.154 With regards to sequential impacts, the addition of Ballivor increases the potential for cumulative impacts to the west and south of the study area due to the scale of the development. However, the scale and direction of these are similar to the above (permitted/Bracklyn cumulative scenario), as Ballivor and Bracklyn are near one another, relative to the Proposed Development.
- 10.155 Overall, it is considered that the Proposed Development will contribute an additional cumulative effect that is in the order of Medium with respect to the impact classification above due to the scale and extent of the Ballivor application, which is mitigated by the separation from the Proposed Development, and clustering with the permitted Bracklyn Wind Farm.

## Mitigation Measures

- 10.156 Outside of those landscape and visual mitigation measures that formed part of the iterative design process of this Proposed Development over a number of years, and which are embedded in the assessed project, other specific landscape and visual mitigation measures are not considered necessary / likely to be effective. Thus, the impacts assessed in **Appendix 10.1** are the equivalent of residual impacts in this instance.

## Decommissioning Phase

- 10.157 The decommissioning phase will see a similar nature of effects to the construction stage due to the movement of heavy machinery within the site and to and from the site removing turbine components. However, such effects will be temporary in duration and decreasing in scale as turbines are removed from view and the landscape is substantially reinstated to former uses. As with construction stage impacts, decommissioning stage effects are not considered to be significant.

## Summary of Significant Effects

- 10.158 It is not considered that there will be any significant effects arising from the Proposed Development.

## Statement of Significance

- 10.159 Based on the landscape, visual and cumulative assessment contained herein, it is considered that there will not be any significant effects arising from the Proposed Development.

## References

- Department of Environment Heritage and Local Government (DoEHLG) Wind Energy Planning Guidelines (2006/2019 revision) and Preferred Draft Approach to revising the 2006 Guidance published 2017.
- Environmental Protection Agency (EPA) publication 'Guidelines on the Information to be contained in Environmental Impact Statements (2022) and the accompanying Advice Notes on Current Practice in the Preparation of Environmental Impact Statements (2003).
- Landscape Institute and the Institute of Environmental Management and Assessment publication entitled Guidelines for Landscape and Visual Impact Assessment (2013).
- NatureScot Guidance Note: 'Assessing the Cumulative Effects of Onshore Wind Farms (2021)
- Scottish Natural Heritage (SNH) Siting and Designing Wind Farms in the Landscape Version 3 (2017).

## Appendices

### Appendix 10-1: Visual Impact Assessments at VPs

(Refer to EIAR Volume III for Appendices)