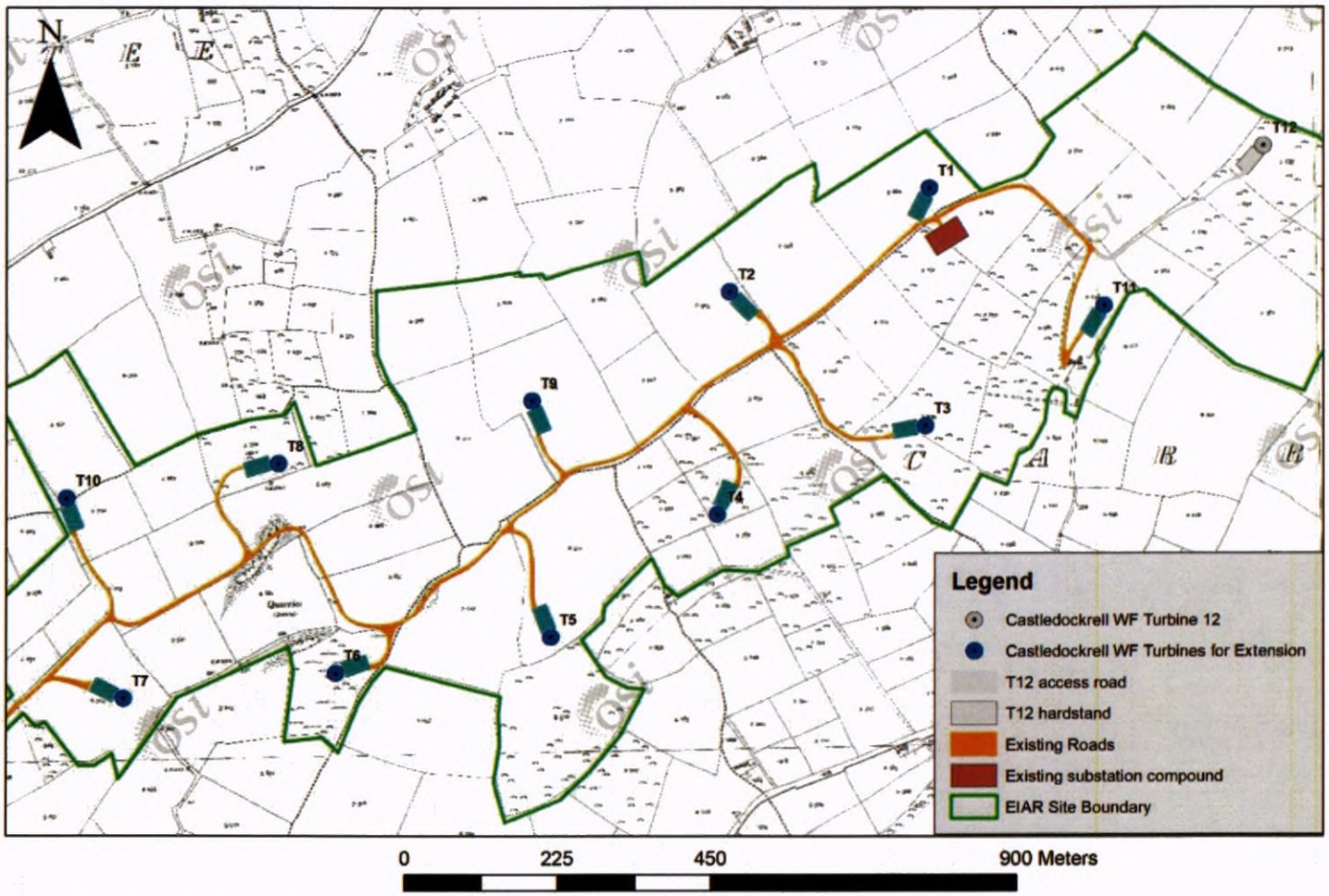

Figure 12-5: Existing Wind Farm site on second edition OS background.

12.3.2 Architectural and Cultural Heritage

12.3.2.1 Protected Structures and NIAH within the Wind Farm

No Protected Structures, NIAH structures or historic gardens are located within the existing Wind Farm or EIAR Site Boundary.

12.3.2.2 Protected Structures within 2km of Turbines

Three Protected Structures are located within 2km of the existing turbines. The structures are listed in Table 12-4 and shown on Figure 12-6. All of the Protected Structures are also included in the NIAH (See below).

Table 12-4: Protected Structures within 2km of the existing turbines.

RPS	NIAH	TYPE	ITM E	ITM N	Turbine No.	Distance (m)
WCC1099	15701428	All Saints' Catholic Church	694485	648898	T12	1744
WCC0837	15701416	Templeshanbo Erasmus Smith School	689575	648397	T7	1843
WCC0836	15701415	Saint Colman's Church	689507	648443	T7	1893

The nearest Protected Structure comprises All Saints' Catholic Church at Mountfin Upper, Castledockrell (Ref. WCC1099). It is also included in the NIAH and is described therein as follows:

All Saints' Catholic Church, MOUNTFIN UPPER, Castledockrell, WEXFORD
Reg No. 15701428
Rating: Regional
Description
Detached five-bay double-height single-cell Catholic church, built 1840, on a rectangular plan. Renovated, 1978-9, with sanctuary reordered. Pitched slate roof behind parapet with lichen-covered clay ridge tiles, and cast-iron rainwater goods on slate or stone flagged eaves retaining cast-iron downpipes. Gritdashed roughcast walls on rendered chamfered plinth with rusticated rendered quoins to corners; gritdashed roughcast surface finish to entrance (west) front on rendered chamfered plinth with rusticated rendered quoins to corners supporting cut-granite stepped coping to parapet centred on cut-granite bellcote framing cast-bronze bell. Lancet window openings in pointed arch recessed with cut-granite sills, and rendered "bas-relief" surrounds framing storm glazing over fixed-pane fittings having lattice glazing bars. Remodelled square-headed door opening to entrance (west) front with concrete threshold, and rendered "bas-relief" surround framing timber boarded or tongue-and-groove timber panelled double doors having sidelights below overlight. Lancet window opening in tripartite arrangement to gable, rendered "bas-relief" surrounds with hood moulding over on nail head-detailed fluted consoles framing storm glazing over fixed-pane fittings having lattice glazing bars. Lancet flanking window openings, rendered "bas-relief" surrounds with hood mouldings over on label stops framing storm glazing over fixed-pane fittings having lattice glazing bars. Interior including vestibule (west); square-headed door opening into nave with glazed timber panelled double doors having sidelights on panelled risers below overlight; full-height interior with carpeted aisles between timber pews, paired Gothic-style timber stations between frosted glass windows, carpeted stepped dais to sanctuary (east) reordered, 1978-9, with reclaimed cut-veined grey marble panelled altar, and moulded plasterwork cornice to ceiling. Set in landscaped grounds on a corner site.

Appraisal
A church erected to a design attributed to Richard Pierce (1801-54) of Tenacre (Murphy 1984, 23; de Vál 2004, 100; O'Leary 2005, 78-9) representing an important component of the early nineteenth-century built heritage of north County Wexford with the architectural value of the composition, one recalling the Pierce-designed Saint Mary Magdalene's Catholic Church (1825-6; demolished 1970), Bunclody (see 15602077); and Saint Mary Magdalene's Catholic Church (1831), Kilmyshall (see 15700905), suggested by such attributes as the compact rectilinear "barn" plan form, aligned along a liturgically-correct axis; the slender profile of the openings underpinning a "medieval" Georgian Gothic theme; and the "pointed" bellcote embellishing the parapeted roofline as a picturesque eye-catcher in the landscape. Having been well maintained, the elementary form and massing survive intact together with quantities of the historic or original fabric, both to the exterior and to the interior reordered (1978-9) in accordance with the liturgical reforms sanctioned by the Second Ecumenical Council of the Vatican (1962-5) where contemporary joinery; a much modified high altar reclaimed from Bunclody; and sleek plasterwork refinements, all highlight the artistic potential of a church forming part of a neat self-contained group alongside a later parochial house (see 15701429) with the resulting ecclesiastical ensemble making a pleasing visual statement in a rural village setting.

Plate 12.1: All Saint's Catholic Church (RPS ref. WCC1099) (Photo courtesy of www.buildingsofireland.ie).

12.3.2.3 NIAH within 2km of Turbines

Eight NIAH structures are located within 2km of the existing turbines. The structures are listed in Table 12-5 and shown on Figure 12-7. One historic gardens is located within 2km of the existing turbines and is listed in Table 12-6 below.

Table 12-5: NIAH structures within 2km of the existing turbines.

Reg. No.	TYPE	Date from-to	Townland	ITM E	ITM N	Turbine No.	Distance (m)
15701419	farm house	KILCULLEN	1790 to 1795	690370	648269	T7	1193
15701425	country house	BALLYHAMILTON	1842 to 1853	692244	647886	T5	1233

Reg. No.	TYPE	Date from-to	Townland	ITM E	ITM N	Turbine No.	Distance (m)
15701412	farm house	BALLINACOOLA (Scarawalsh By.)	1700 to 1839	689648	649737	T10	1650
15701430	post box	MOUNTFIN UPPER	1907 to 1910	694427	648928	T12	1679
15701428	church/chapel	MOUNTFIN UPPER	1835 to 1845	694485	648898	T12	1744
15701416	school	BOLA BEG	1810 to 1820	689575	648397	T7	1843
15701415	church/chapel	BOLA BEG	1810 to 1820	689508	648442	T7	1893
15701417	graveyard/cemetery	BALLINDAGGAN	1741 to 2009	689456	648324	T7	1979

Table 12-6: Historic gardens located within 2km of the existing turbines.

Site Name	ITM E	ITM N	Turbine No.	Distance (m)
Glebe House, Templeshanbo	689731	648344	T7	1715

The nearest NIAH structure to the existing turbines comprises a farm house (Reg. 15701419) which is located c. 1.2km south-west of T7. It is described on www.buildingsofireland.ie as follows:

Kilcullen House, KILCULLEN, WEXFORD
Reg No.15701419
Rating: Regional
Description
Detached four-bay two-storey farmhouse, dated 1792, on a rectangular plan with single-bay two-storey side elevations. Occupied, 1911. Vacated, 1978. Now in ruins. Hipped slate roof now missing with no rainwater goods surviving on slate flagged eaves. Part creeper- or ivy-covered lime rendered coursed rubble stone battered walls with concealed rough hewn granite flush quoins to corners centred on coursed rubble stone buttress. Hipped square-headed off-central door opening below cut-granite date stone ("1792") with slate hung dressings including timber lintel framing chevron- or saw tooth-detailed timber boarded door having sidelights. Square-headed window openings with cut-granite sills, and concealed dressings including timber lintels framing remains of six-over-six timber sash windows without horns. Interior in ruins. Set in unkempt grounds with rear (north) elevation fronting on to lane.

Appraisal
The shell of a farmhouse representing an important component of the domestic built heritage of County Wexford with the pseudo vernacular basis of the composition, one most likely predating its discreet date stone ("1792"), suggested by such attributes as the compact rectilinear plan form; the construction in unrefined local fieldstone not only displaying a battered silhouette, but also a stout stabilising buttress; and the disproportionate bias of solid to void in the massing compounded by the slight diminishing in scale of the openings on each floor producing a feint graduated visual impression. Although reduced to an overgrown ruin following a prolonged period of unoccupancy in the later

twentieth century, the elementary form and massing survive intact together with remnants of the original fabric, both to the exterior and to the interior, thus upholding some of the character or integrity of a farmhouse making an increasingly forlorn visual statement in a sylvan street scene.

Plate 12-2: Kilcullen House (NIAH Reg. 15701419). Photo courtesy of www.buildingsofireland.ie).

12.3.2.4 Cultural Heritage Items

No new sites or cultural heritage features either of local or regional importance were recorded during the site inspection of the existing Wind Farm site or during the review of the available historic mapping.

Figure 12-6: Protected Structures within 2km of the existing turbines.

Figure 12-7: NIAH structures and historic gardens within 2km of the existing turbines.

12.4 Likely Significant Effects and Associated Mitigation Measures

12.4.1 'Do Nothing' Alternative

If the Proposed Development were not to proceed, the existing Castledockrell Wind Farm turbines will be decommissioned by the end of August 2025, as per the existing permission.

Upon decommissioning of the exiting Castledockrell Wind Farm, the 11 no. turbines would be removed from site. Some of the existing site roads would be left in place as they are currently being used by local landowners to access agricultural lands. The existing hardstands and remaining site roads which will not be re-used will be covered over with a local topsoil and left to reseed. If the Proposed Development were not to proceed, the opportunity to generate renewable energy and electrical supply to the national grid would be lost, as would the opportunity to further contribute to meeting Government and EU targets for the production and consumption of electricity from renewable resources and the reduction of greenhouse gas emissions.

No potential direct effects to the Cultural Heritage resource as a result of the 'Do-Nothing' Alternative are identified given that no recorded monuments, protected structures or NIAH structures are located within the wind farm site and archaeological monitoring of topsoil removal associated with the construction stage of the project was previously undertaken and no sub-surface features were uncovered.

12.4.2 Construction Phase Potential Effects – Indirect

Indirect effects, in terms of archaeology, architectural and cultural heritage are considered to be those effects which happen away from 'the site'. This includes effects on visual setting of any cultural heritage asset in the wider landscape. Since these effects are only possible after construction activities, they are considered operational effects and are therefore discussed in Section 12.4.4 below. No indirect effects were identified which could occur at the 'construction stage' as no construction activities are proposed (see below).

12.4.3 Construction Phase Potential Effects (Direct)

No construction activities, groundworks or alterations to the existing wind farm are proposed as part of the Proposed Development.

Direct effect refers to a 'physical impact' on a monument or site. The construction phase was completed during the initial wind farm construction and was subject to archaeological monitoring (see Section 12.3.1.6 above). No archaeological finds or features were uncovered at that time. Since there are no proposals to alter the footprint of the existing access roads, hardstands or turbines there will be no ground works associated with the Proposed Development. No potential direct effects to the archaeological or architectural heritage resource, including potential sub-surface archaeology will therefore occur.

No construction activities, ground works or alterations to the existing substation area proposed as part of the Proposed Development. No potential direct effects to the archaeological or architectural heritage resource, including potential sub-surface archaeology will therefore occur.

12.4.4 Operational Phase Potential Effects (Direct)

In terms of direct effects on archaeology, architecture and cultural heritage, since groundworks are already completed as part of the existing wind farm, it is considered that no direct effects would occur at the operational stage.

12.4.5 Operational Phase Potential Effects (Indirect)

The baseline environment consists of the existing wind farm including turbines, existing roads, substation, etc. No National Monuments or those subject to a Preservation Order, recorded monuments, Protected Structures, NIAH structures or historic gardens are located within the existing Wind Farm site.

Four National Monuments in State Care, one of which is also subject to a Preservation Order, are located within 10km of the existing turbines. Three of the monuments are located at Ferns over 8km to the east. Thirteen recorded monuments are located within 2km of the nearest turbines. This comprises a relatively low density of monuments within the surrounding landscape. Three Protected Structures are located within 2km of the existing turbines while eight NIAH structures and one historic garden are located within the 2km study area.

The Proposed Development is expected to have a lifespan of c. 20 years, commencing from the date of expiration of the permission for 11 no. of the existing turbines in August 2025. During the operational period, on a day-to-day basis the wind turbines will operate automatically, responding by means of anemometry equipment and control systems to changes in wind speed and direction.

No significant operational phase activities are proposed which would require further assessment. The continuation of the operational phase of the wind farm will not arise in any further effects on setting to the Cultural Heritage resource. Cumulative effects on setting are addressed below.

12.4.6 Decommissioning Phase

Decommissioning of the existing wind farm is required to be carried out in August 2025, i.e. 20 years from the grant of permission for the 11 no. turbines, under the current planning permission. The Proposed Development would extend the operation of the existing wind farm for a further 20 years, thereby postponing decommissioning until 2045.

No recorded monuments, protected structures, NIAH structures, historic gardens or items of local cultural heritage merit are located within the existing Wind Farm site.

As detailed in Section 4.6 in Chapter 4 and in the Decommissioning Plan included as Appendix 4-4, upon decommissioning of the Proposed Development, the wind turbines will be disassembled in reverse order to how they were erected. All above-ground turbine components will be separated and removed off-site for reuse or recycling. It is proposed to leave turbine foundations in place underground and to cover them with earth and reseed as appropriate. It is proposed that site roadways will be left in situ, as appropriate, to facilitate on-going access and agricultural uses.

Given that minimal works will be required at the decommissioning phase and it is proposed that the site roads be left in situ, no potential direct effects to the archaeological, architectural or cultural heritage resource, including sub-surface archaeology, are identified and no mitigation is proposed.

12.5 Cumulative Effects

Cumulative effect is defined as *'The addition of many small impacts to create one larger, more significant, impact'* (EPA 2022). Cumulative effects encompass the combined effects of multiple

developments or activities on a range of receptors. In this case, the receptors are the archaeological monuments and architectural/cultural heritage sites in the vicinity of the Proposed Development. Cumulative effects at the Construction and Operational Stages are considered. Cumulative effect takes into account other projects such as existing and proposed wind farms, existing and proposed solar farms, and other smaller scale permitted and proposed developments many of which comprise agricultural and one-off residential developments (details of which are provided in Section 2.6 in Chapter 2 of this EIAR) and the existing grid connection.

12.5.1 Cumulative Effects (Direct Effects – Construction stage)

The Proposed Development consists of the continued operation of the existing wind farm. All construction works were carried out previously and none form part of the Proposed Development. No direct effects were identified during this assessment and therefore if no direct effects were identified, no direct cumulative effects will occur within the EIAR Site Boundary. All potential direct effects were addressed during the construction stage of the existing wind farm. An archaeologist was appointed to monitor all groundworks which sought to identify and protect any potential sub-surface archaeological features within the wind farm site. No such potential sub-surface archaeological finds or features were noted within the wind farm site during the archaeological monitoring.

The potential **direct** effects arising from other projects would have been dealt with in the same way either through the discharge of mitigation measures outlined in any assessments undertaken or discharge of planning conditions pertaining to archaeology, architectural or cultural heritage. In this regard when the projects are considered together there is no increase in direct cumulative effects.

It is unclear if the existing grid connection was subject to any archaeological mitigation measures or requirements, however, no recorded monuments, protected structures or NIAH structures are located directly on same. When considered cumulatively with the Proposed Development no increase to direct cumulative effects are identified.

12.5.2 Cumulative Effects (Indirect)

The operational stage of the Proposed Development will continue in the way that it currently operates. Should the application receive a favourable response from the planning authority, during the operational period, on a day-to-day basis the wind turbines will operate automatically, responding by means of anemometry equipment and control systems to changes in wind speed and direction. Indirect effects on setting occur at the operational stage of the development. No additional activities are being proposed as part of the operational stage of the Proposed Development however, a number of other existing and proposed wind farm developments are located within a 25-kilometre radius of the Proposed Development and are considered cumulatively with the Proposed Development in addition to the existing grid connection.

No UNESCO World Heritage Sites or those on a Tentative List are located within the Proposed Development site or within 20km of same. No National Monuments are located within the Proposed Development site with four National Monuments, one of which is also subject to a Preservation Order, located within 10km of the existing turbines. No recorded monuments, Protected Structures, NIAH structures or historic gardens are located within the EIAR Site Boundary. Thirteen recorded monuments are located within 2km of the nearest turbines. This comprises a relatively low density of monuments within the surrounding landscape. Three Protected Structures are located within 2km of the existing turbines while eight NIAH structures and one historic garden are located within the 2km study area.

As no further activities are proposed to occur during the Operational Stage of the Proposed Development, no additional cumulative effects to the wider archaeological, architectural and cultural heritage resource are identified.

12.6 Conclusion

This archaeological, architectural, and cultural heritage chapter was prepared by Tobar Archaeological Services Ltd. It presents the results of an archaeological, architectural and cultural heritage impact assessment for the extension of operation of the existing Castledockrell Wind Farm, County Wexford. The application seeks a twenty year planning permission for the continuation of the operational life of the existing Castledockrell Wind Farm from the date of their proposed decommissioning in August 2025, a per Condition 7 of the WCC 2004/4702 and ABP Ref PL26.211725 planning permissions. It is also proposed to permanently extend the operation of the existing onsite 110kV substation, which is also proposed to be decommissioned in August 2025.

The purpose of this chapter is to assess the potential direct and indirect effects of the Proposed Development on the surrounding archaeological, architectural and cultural heritage landscape. The assessment is based on both a desktop review of the available cultural heritage and archaeological data and a site inspection.

As the Proposed Development comprises the continued operation of the existing wind farm and no works are proposed at the operational stage, no direct or indirect effects to the archaeological, architectural or cultural heritage resource are identified. Similarly, no additional cumulative effects on this resource are identified as a result of the Proposed Development. No potential effect as a result of the proposed decommissioning phase of the Proposed Development are identified.

13. LANDSCAPE AND VISUAL

13.1 Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) addresses the potential landscape and visual impacts of the continued operation of the existing Castledockrell Wind Farm, henceforth to be referred to as the Proposed Development. The emphasis in this chapter is on the likely significant direct and indirect effects of the Proposed Development. It covers the assessment methodology, a description of the Proposed Development and its existing landscape. It includes a description of the landscape policy of County Wexford with specific reference to wind energy and the Study Area (as defined in Section 13.2.1 below) in which the Proposed Development is located.

The landscape of the site and surrounding area is described in terms of its existing character, which includes a description of landscape values and landscape sensitivity. The landscape and visual impact assessment of the Proposed Development uses visibility mapping and photos from representative viewpoints. The potential impacts in both landscape and visual terms are then assessed, including cumulative impacts.

It is important to reiterate that the Castledockrell Wind Farm is an existing development and has been operational for since 2011, with the current planning permission set to expire in August 2025. This EIAR is being prepared in support of a planning application to extend the operational lifespan of the facility beyond 2025, by a further 20 years.

The current Castledockrell Wind Farm is made up of 12 no. existing wind turbines, 11 of these existing turbines form part of this application. The key component of the Castledockrell Wind Farm with the potential for landscape and visual effects are the 11 No. of the 12 no. wind turbines, which are currently visible within the landscape. The assessments in this Landscape and Visual Impact Assessment (LVIA) are predominantly informed by the reality of the landscape and visual effects of the wind farm as it is currently experienced on the ground.

13.1.1 Statement of Authority

MKO has developed extensive expertise and experience over the last 15 years in the Landscape and Visual Impact Assessment of a range of projects, including multiple large scale wind energy developments.

This Chapter was written by Saoirse Fitzsimons. Saoirse Fitzsimons is a Project Environmental Scientist and LVIA Specialist with MKO. She is an Affiliate Member of the British Landscape Institute. Her primary role at MKO is producing the LVIA chapter of EIAR reports. Saoirse holds an MSc. in Coastal and Marine Environments from the National University of Ireland, Galway where she was awarded The Prof Micheál O Cinnéide Award for Academic Excellence. Since joining MKO, Saoirse has worked widely on renewable energy infrastructure, commercial, recreational, and residential projects. Saoirse is a qualified Unmanned Aerial Vehicle Operator and holds an A1/A3 and A2 drone licence.

This Chapter was reviewed by Jack Workman MSc, TMLI. Jack is a chartered as a Technician Member (TMLI) of the British Landscape Institute and he is the Landscape & Visual Project Director at MKO. He is an Environmental Scientist and Landscape and Visual Impact Assessment (LVIA) specialist. Jack Workman's primary role at MKO is producing the LVIA chapter of EIA reports for large infrastructure developments. Jack holds an MSc. in Coastal and Marine Environments and a BSc. in Psychology, he is a member of the Landscape Research Group, as well as holding a membership with the Chartered Institute of Water and Environmental Management.

13.1.2 'Do-Nothing' Scenario

If the Proposed Development were not to proceed, the 11 existing turbines which constitute the Proposed Development will be decommissioned in of August 2025, as per the existing permission.

Upon decommissioning of the exiting Castledockrell Wind Farm, the 11 no. existing turbines would be removed from site. Some of the existing site roads would be left in place as they are currently being used by local landowners to access agricultural lands. The existing hardstands and remaining site roads which will not be re-used will be left to revegetate and regenerate naturally. If the Proposed Development were not to proceed, the opportunity to generate renewable energy and electrical supply to the national grid would be lost, as would the opportunity to further contribute to meeting Government and EU targets for the production and consumption of electricity from renewable resources and the reduction of greenhouse gas emissions.

13.1.3 Proposed Development Description

The Proposed Development comprises an extension of operation of the existing 11-turbine Castledockrell Wind Farm and is described in detail in Chapter 4 of this EIAR.

The existing Castledockrell Wind Farm consists of 12 no. Enercon E70 2.3 megawatt (MW) wind turbines with a maximum overall blade top height of 120 metres (m), with a hub height of 84.5m and a rotor diameter of 71m. However, it is proposed to extend the operational life of T1 – T11, with T12 being assessed cumulatively.

References: For the purposes of the EIAR and the LVIA in this Chapter:

- Where the 'Proposed Development' is referred to, this relates to all proposed project components listed in Chapter 4 of the EIAR.
- Where 'the Site' or 'Proposed Development site' is referred to, this relates to the primary Study Area for the EIAR as delineated by a green line and labelled as the 'EIAR Site Boundary' in mapping Figures in this Chapter and throughout the EIAR.
- The 'existing turbines' refers to the 11 no. existing turbines of the existing Castledockrell wind farm included in the proposed extension of operation (does not include turbine T12 of the existing wind farm).
- 'T12' refers to an existing turbine of the existing Castledockrell Wind Farm which does not form part of the Proposed Development. T12 was permitted and constructed under a different planning permission (than the other turbines of the existing wind farm) and is not due to be decommissioned in 2025, it therefore does not form part of this planning application.

13.1.3.1 Essential Aspects of the Proposed Development from an LVIA Perspective

The Guidelines for Landscape and Visual Impact Assessment 3rd Edition (hereafter, GLVIA3) (Landscape Institute & Institute of Environmental Management and Assessment [LI & IEMA], 2013) states that:

> *"it is important to make sure that the project description provides all the information needed to identify its effects on particular aspects of the environment. For LVIA it is important to understand, from the project description, the essential aspects of the scheme that will potentially give rise to its effects on the landscape and visual amenity".*

The tall, vertical nature of the turbines make them the most prominent elements of any proposed wind energy development from a landscape and visual perspective and have the most potential to give rise to significant landscape and visual effects. In the context of this Chapter, the existing 11 no. turbines are deemed to be the '*essential aspect*' of the Proposed Development which will give rise to potential effects on the landscape and visual amenity and is therefore a primary focus of the LVIA conducted in this chapter.

13.1.3.2 Landscape and Visual Assessment of an Existing Wind Farm

The Proposed Development constitutes an existing wind farm which is built, operational and currently visible in the existing landscape. The assessments in this Chapter are predominantly informed by the reality of the landscape and visual effects of the Proposed Development as it is currently experienced on the ground. In this regard, the LVIA is mostly reliant on visibility appraisals conducted during site visits and photographic imagery captured from within the surrounding landscape.

As is evident by all photos and visualisations in this Chapter, the proposed extension of operation of the existing Castledockrell Wind Farm amounts no change to the existing views of the 11 turbines. As detailed in the methodology (See Section 13.2) the term 'Magnitude of Change' is a key factor used to determine impacts. In the context of this assessment where the turbines already exist in the landscape, the magnitude of the **continued** impact of the turbines is considered. To facilitate the impact assessments, and effectively determine the continued landscape and visual impact of the Proposed Development in the landscape, the magnitude of change was determined by considering the change that would occur against a 'do-nothing scenario' where the turbines would not be visible in the landscape.

A conventional LVIA conducted for a new proposal in the landscape would use other tools of a more theoretical nature such as Zone of Theoretical Visibility (ZTV) Mapping and photomontages. This assessment uses many of the traditional tools used to compile a LVIA as these still have relevance to the assessment process by providing context and illustrating the points that are being explained by text. Although the turbines are in place, the ZTV mapping (which will be explained in the chapter) at a minimum lets the reader know from where the turbines will never be visible. This allows interested parties to focus on the areas and visit the areas where potential visibility may theoretically exist. The ZTV informs visibility appraisals from key sensitive receptors and helps identify key viewpoint locations used for the assessment of visual effects.

Verified photomontages are not required for this LVIA as the turbines exist within the landscape and do not need to be modelled within landscape views. As mentioned previously, the impact assessments are predominantly informed by site visits and photographic imagery captured on the ground. Several representative viewpoints are selected to assess impacts from some of the most prominent receptors where open visibility is evident and there is potential for cumulative landscape and visual effects to occur. In the case of this project, anyone visiting the site and the surrounding landscape can see the turbines, if visible, from all locations around the site. In this case, the assessment is not reliant on the viewpoints to the extent that it may be for traditional projects where turbines are only proposed.

13.2 Methodology

This section broadly outlines the methodology and the guidance used to undertake the landscape and visual impact assessment of the Proposed Development. There are five main sections to this assessment:

- Landscape Baseline
- Visual Baseline
- Cumulative Baseline
- Likely and Significant Landscape and Visual Effects – The assessment of landscape and visual effects including assessment of effects from representative viewpoints.

13.2.1 Scope and Definition of the Landscape and Visual Impact Assessment (LVIA) Study Area

The Proposed Development site is delineated by a green line labelled as the 'EIAR Site Boundary' in mapping figures shown in Section 13.3 – ***Landscape Baseline.***

The GLVIA3 (LI & IEMA, 2013) guidance refers to the identification of the area of landscape that is to be covered while assessing landscape and visual effects. The guidelines state:

> ***"The study areas should include the site itself and the full extent of the wider landscape around it which the Proposed Development may influence in a significant manner."***

Landscape and visual baseline mapping and viewpoint selection are based on a wider study area referred to as the 'LVIA Study Area'. The geographical parameters for this LVIA were determined by desktop studies, survey work undertaken, the professional judgement of the assessment team, experience from other relevant projects and policy guidance or standards, such as:

- *Appendix 3*, Wind Energy Development Guidelines– DoEHLG, 2006 (including reference to the draft WEDGs, DoHPLG, 2019)
- The Guidelines for Landscape and Visual Impact Assessment 3rd Edition – (GLVIA 3, 2013)

The distance at which a ZTV is set from a proposed wind farm development usually defines the parameters of the LVIA Study Area. In this chapter, the LVIA Study Area was chosen as 20km for landscape and visual effects, as is suggested by guidance (WEDGs, DoEHLG, 2006, p.94; Draft Revised WEDGs, DoHPLG, 2019, p.152):

> ***'For blade tips in excess of 100m, a Zone of Theoretical Visibility radius of 20km would be adequate'.***

Through experience conducting LVIA for other wind energy development projects, the assessment team determined that no significant effects on landscape character are likely to arise beyond distances of 15km from the existing turbines. Therefore, a LVIA Study Area of 15km was chosen for assessing effects on landscape character in relation to designated Landscape Character Units (LCUs).

Furthermore, on the basis of desk studies and survey work undertaken as prescribed by best practice guidance, the professional judgement of the assessment team, the following topic areas have been scoped out of the assessment:

- Effects on landscape and visual receptors that have minimal or no theoretical visibility (as predicted by the ZTV) and/or very distant visibility and are therefore unlikely to be subject to significant effects.

- Effects on designated landscape receptors beyond a 20 km radius from the existing turbines, from where it is judged that potential significant effects on key characteristics and/or special qualities, or views are judged unlikely to occur.
- Effects on landscape character and designated Landscape Character Areas beyond a 15 km radius from the existing turbines, where it is judged that potential significant effects on landscape character are unlikely to occur.
- Effects on visual receptors beyond a 20 km radius from the turbines, where it is judged that potential significant effects are unlikely to occur.
- Cumulative landscape and visual effects beyond a 20 km radius from the turbines, where it is judged that potential significant cumulative effects are unlikely to occur.
- Effects on visual or landscape receptors in Counties Carlow and Wicklow. Low-lying areas of Co. Carlow, behind the Backstairs Mountain range, are located to the west of the LVIA Study Area. Low-lying areas of Co. Wicklow are located, behind Gibbet Hill, to the north of the LVIA Study Area. From baseline studies and site visits these counties have been scoped out due to the factor of distance and lack of visibility from any sensitive receptors in the area.

The tall, vertical nature of the existing turbines makes them the most prominent elements of the Proposed Development from a landscape and visual perspective and have the most potential to give rise to significant landscape and visual effects. The landscape and visual impact of other existing ancillary elements of the Proposed Development such as the roads and substation are addressed within this chapter, however, the existing turbines are of primary focus in this LVIA.

13.2.2 Guidelines

While the legislation and general guidance on Environmental Impact Assessment is set out in Chapter 1 of this EIAR only guidance specifically pertaining to the Landscape and Visual Impact are outlined below.

Ireland signed and ratified the European Landscape Convention (ELC) in 2002, which introduces a pan-European concept which centres on the quality of landscape protection, management and planning. The Department of Arts, Heritage and the Gaeltacht has published a National Landscape Strategy for Ireland in 2015. The Strategy aims to ensure compliance with the ELC and contains six main objectives, which include developing a national Landscape Character Assessment and Developing Landscape Policies.

In 2000, the Department of the Environment and Local Government published 'Landscape and Landscape Assessment: Consultation Draft of Guidelines for Planning Authorities', which recommended that all Local Authorities adopt a standardised approach to landscape assessment for incorporation into Development Plans and consideration as part of the planning process. However, this DoEHLG 2000 guidance remains in draft form.

The landscape and visual impact assessment was primarily based on the Guidelines for Landscape and Visual Impact Assessment or GLVIA (The Landscape Institute/Institute of Environmental Management and Assessment, UK, 2013). A range of other guidelines also inform the preparation of this landscape and visual impact assessment, which include:

- Wind Energy Development Guidelines for Planning Authorities (Department of the Environment, Heritage and Local Government, 2006) – Referred to throughout this chapter as the 'WEDGs (DoEHLG, 2006)'
- Draft Revised Wind Energy Development Guidelines (Department of Housing, Planning and Local Government, 2019) – Referred to throughout this chapter as the 'Draft WEDGs (DoHPLG, 2019)'
- Visual Representation of Wind Farms: Version 2.2 (Scottish Natural Heritage, 2017)

- **Siting and Designing Wind Farms in the Landscape, Version 3a (Scottish Natural Heritage, 2017)**
- **Assessing the Cumulative Landscape and Visual Impact of Onshore Wind Energy Developments. (Nature Scot, 2021)**
- **Visual Representation of Development Proposals (Landscape Institute Technical Guidance Note 06/19, 2019)**
- **Notes and Clarifications on Aspects of GLVIA3: Landscape Institute Technical Guidance Note 2024-01 (Landscape Institute, 2024)**
- **Spatial Planning for Onshore Wind Turbines – natural heritage considerations (Scottish Natural Heritage, 2015)**
- **Cumulative Impact of Wind Turbines on Landscape and Visual Amenity (Carmarthenshire County Council, 2013)**

13.2.3 Zone of Theoretical Visibility Mapping

Zone of Theoretical Visibility (ZTV) mapping is an important step in the LVIA process. For reasons outlined below, ZTVs are useful mapping tool for LVIA, even when assessing the impact of turbines which are already built and visible within the landscape.

The MKO landscape and visual team have extensive experience ground truthing areas showing no theoretical visibility of turbines on half blade ZTV maps. In this regard, ZTV mapping is a useful tool to indicate where there is no visibility of turbines of a wind farm development (proposed or existing). The ZTV is therefore a useful tool for scoping out receptors from assessment that do not have theoretical visibility of turbines. In the context of the assessments reported in Chapter 13, where the existing turbines already exist within the landscape, the ZTV ensures on-site visibility appraisals and identification of sensitive receptors can be focussed to areas where the existing turbines are most likely to be visible. The results of site investigations reported later in this chapter also consider the difference in visibility between what exists on the ground compared with what is shown on the ZTV map.

The Zone of Theoretical Visibility (ZTV) represents the area over which a development can theoretically be seen and is based on a Digital Terrain Model (DTM), overlaid on a map base. A DTM refers to the way in which a computer represents a piece of topography in three dimensions as a digital model. ZTV maps provide the following information:

- Indicates broad areas where visibility of a wind energy development is most likely to occur.
- How much of the wind energy development is likely to be visible (using different coloured bands for different numbers of turbines);
- The extent and pattern of visibility.

Production of ZTV maps is usually one of the first steps of Visual Impact Assessment, helping to inform the selection of the Study Area in which impacts will be considered in more detail and the identification of sensitive vantage points (Visual Representation of Wind Farms, Scottish Natural Heritage, 2017).

13.2.4 Limitations of ZTV Mapping

The Scottish Natural Heritage guidelines referred to above acknowledge the following limitations inherent to the use of theoretical visibility mapping:

- The ZTV presents a 'bare ground' scenario, i.e. visibility of the Proposed Development in a landscape without screening structures or vegetation. This includes trees, hedgerows, buildings and small-scale landform or ground surface features. The ZTV also does not take into account the effects of weather and atmospheric conditions, and therefore can be said to represent a 'worst-case' scenario, that is

where the wind farm could potentially be seen given no intervening obstructions and favourable weather conditions.

- The ZTV indicates areas from where a wind farm may be visible, but cannot show how it will look, nor indicate the nature or magnitude of visual impacts. The visibility of the turbines will decrease with the distance from which they are viewed, but this is not accounted for in the ZTV. Figure 13-1 below provides an illustration of the differences in view relative to the distance from a turbine.

Figure 13-1 The effect of distance on visibility of wind turbines (Illustrative Purposes Only)

- A ZTV is only as accurate as the data on which it is based. It is not easy to test the accuracy of a ZTV in the field, although some verification will occur during the assessment of viewpoints.
- In order to handle large areas of terrain, the DTM data is based on information that does not allow detail to be distinguished below a certain level. There are also differences in the way that the software package 'interpolates' between heights in the calculations made.

13.2.5 ZTV Methodology

The ZTV maps presented in the EIAR show theoretical visibility of the existing turbines using blade height of the wind turbines as points of reference. The maps also show the theoretical visibility of the proposed wind farm in addition to theoretical visibility of other existing and permitted wind farms in the area. The area covered by the ZTV maps has a radius of 20 kilometres from the outer-most existing turbines – The LVIA Study Area.

Separate colour bands are used on each ZTV map to indicate the number of turbines which will potentially be visible to half blade i.e. only half a blade might be visible over the topography as opposed to seeing a full turbine. The legend on each map shows the number of visible turbines for each corresponding colour, which are as follows:

- Orange: 1-3 Turbines Theoretically Visible
- Green: 4-6 Turbines Theoretically Visible
- Yellow: 7–9 Turbines Theoretically Visible
- Navy: 10- 11 Turbines Theoretically Visible

13.2.6 Photographic Visualisations

The assessment of potential impacts in Chapter 13 uses photographic and wireline visualisations (not *photomontages as the turbines are existent within landscape views), whereby the potential effects arising as a result of the Proposed Development are assessed from viewpoint locations representative of prominent and sensitive landscape and visual receptors located within the LVIA Study Area. These visualisations are included in Volume 2 of this EIAR – *Photographic Visualisation Booklet.*

No Photomontages are included or required in the Volume 2 Photographic Visualisation Booklet as no rendering is required into the photographic imagery as the turbines already exist within the views. No

other permitted or proposed turbines are visible within any of the views and therefore no rendering is required for assessment of cumulative visual effects.

13.2.6.1 Viewpoint Identification

The viewpoints or photo locations were selected following guidance contained in the DoEHLG *'Wind Energy Development Guidelines for Planning Authorities'* (2006), the *'Guidelines for Landscape and Visual Impact Assessment'* (2013) and in the *'Visual Representation of Wind Farms'* (Scottish Natural Heritage, 2017). The selection of photo locations is designed to give a representative range of views of the Proposed Development.

'Viewpoints' are locations where photographic imagery was captured for the visualisation booklet. 5 No. viewpoints were chosen for assessment following visibility appraisals and capture of imagery from key visual receptors during a site visit. Section 13.4 – *Visual Baseline* included a mapping exercise to identify the following sensitive visual receptors in the LVIA Study Area:

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

5 No. Viewpoints were selected from locations representing key visual receptors where there were relatively open views towards the Proposed Development. In addition, viewpoints were selected in close proximity to the existing turbines, where turbines are likely to be most visible and hence visual effects may be greatest.

Viewpoints were chosen having regard to the SNH Guidance (2017) which advises that a range of views should be shown at a range of distances and aspects, as well as at varying elevations and showing both where the development will be completely visible as well as partially visible. Consideration was also given to ensure that viewpoints captured other wind farms in order to assess cumulative visual effects.

13.2.6.2 Photographic Visualisation Limitations

Photographs are subject to a range of limitations, as stated in *'Visual Assessment of Wind Farms'* (Scottish Natural Heritage, 2014):

- Visualisations provide a tool for assessment that can be compared with an actual view in the field; they should never be considered as a substitute to visiting a viewpoint in the field.
- Neither photographs nor visualisations can replicate a view as seen in reality by the human eye.
- Visualisations can only represent the view from a single location at a particular time and in particular weather conditions.
- Static visualisations cannot convey the effect of turbine blade movement.

Although the scale, siting and geometry of visualisations are based on technical data, the other qualities of the image are open to judgments. The guidance also notes that interpretation of visualisations also needs to take into account additional information including variable lighting, movement of turbine blades, seasonal differences and the movement of the viewer through the landscape. However,

accepting these limitations, the SNH guidelines state that photomontages are useful tools in the Visual Impact Assessment of wind turbines.

Furthermore, with regard to the representation of cumulative visual effects, existing, permitted and existing turbines are also shown in the visualisations. The representation of existing turbines relies on photographs taken on site, while permitted and existing turbines are images of turbines superimposed into the image (*photomontages). As such there can be a discrepancy in the lighting and sharpness between these two different representations.

**No photomontages were required for the visualisations included in this LVIA as no other existing or permitted turbines are visible within the fields of view presented from each viewpoint.*

13.2.6.3 Presentation of Visualisations in the Photographic Visualisation Booklet

The viewpoints presented in the accompanying Volume 2 Photographic Visualisation Booklet show several panorama views from each viewpoint location. These include:

1. **Overview Sheet** – Viewpoint details include location description, grid reference distance from nearest turbine and technical data in relation to photography. Three maps at various scales show the viewpoint location. A 120-degree existing view image ('Key Image). Existing turbines visible in the landscape may appear within the image and the horizontal extent of the 90-degree and 53.5-degree image to be presented in subsequent images is also framed.
2. **Existing View at 90°** - 90-degree existing panorama view, a photographic visualisation a matching wireline image of the same view which includes any existing turbines visible in the landscape, including the Existing Castledockrell Wind Farm turbines. If turbines are already existing in the landscape, these are visible on the photograph and are rendered in the wireline.
3. **Matching Wireline at 90° Showing** a wireline image of the existing turbines and any existing cumulative turbines in a 90-degree horizontal field of view. The existing turbines and any other existing wind farms are individually coloured and labelled for ease of identification.
4. **Proposed View at 53.5° with Cumulative**– Showing a photographic visualisation of the existing turbines and any existing cumulative turbines in a 53.5-degree horizontal field of view.
5. **Proposed Wireline at 53.5°** - Showing a wireline image of the existing turbines and any existing and permitted turbines in a 53.5-degree horizontal field of view. The existing turbines and any other existing wind farms are individually coloured and labelled for ease of identification.

The viewpoint images contained in the booklet are devised to be viewed at arm's length.

13.2.7 Landscape and Visual Impact Assessment Methodology

13.2.7.1 Identification of Landscape & Visual Receptors

Section 13.3 below includes the Landscape Baseline. This section reviews the policies and objectives of various planning policy documents relating to landscape, planning and the locational siting of wind farms, as they relate to the site of the Proposed Development. The LVIA Study Area is situated in areas of Counties Wexford, Carlow and Wicklow. The Landscape Baseline states baseline information about the receiving landscape of the Proposed Development site and its wider setting. Section 13.4 includes the Visual Baseline. This section identifies key sensitive visual receptors in the LVIA Study Area where

visibility of the Proposed Development is likely to occur and reports upon the nature of this visibility from visual receptors. The visual baseline is informed by ZTV mapping and visibility appraisals conducted during site visits. Receptors with no visibility of the Proposed Development are screened out from assessment in the effects section of the Chapter.

The effects on key sensitive landscape and visual receptors identified in the baseline investigation are assessed in Section 13.6 – ***Likely or Significant and Visual Effects using*** the methodology reported below. The assessment of effects is primarily informed by site visits, ZTV mapping and the assessment of the 5 No. visualisations from representative viewpoints.

13.2.7.2 Assessing Landscape Effects

The methodology uses qualitative methods to arrive at an assessment, which is based on the Landscape and Landscape Assessment (2000) Guidelines as well as the GLVIA (2013), and the DoEHLG (2006) Guidelines were also considered.

Landscape effects can be described as changes which affect the landscape as a resource. This includes how the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects and its landscape character. Landscape effects also relate to changes in the structure of the landscape. Under the GLVIA (2013), the assessment of likely significant effects on landscape receptors includes a judgement on both the sensitivity of the receptor as well as magnitude of the change.

13.2.7.2.1 *Landscape Effects - Assessing Landscape Sensitivity*

Landscape Sensitivity is described in the GLVIA (2013) as a combination of the landscape's susceptibility to change as well as the value attached to the landscape receptor.

Susceptibility to change can be described as the ability of the landscape receptor (either the overall character, quality of the landscape or a particular landscape feature) to accommodate the Proposed Development without undue consequences for the maintenance of the baseline (existing) landscape and/or the aims of landscape planning policies and strategies. Table 13-1 below presents differing description criteria for susceptibility to change.

Table 13-1 Landscape Sensitivity

Susceptibility of landscape receptor to change	Description and example criteria
High	Landscape receptors where the overall character of the landscape receptor or the nature of the individual landscape receptor causes it to have a high susceptibility to change considering its inherent characteristics and where the landscape receptor has a low ability to accommodate the proposed change without undue consequences for the maintenance of its landscape character, and/or its quality or condition, and/or its particular aesthetic and perceptual aspects, and where such change is not in compliance with planning policies/strategies
Medium	Landscape receptors where the overall character of the landscape receptor or the nature of the individual landscape receptor causes it to have a medium susceptibility to change considering its inherent characteristics and where the landscape receptor has a moderate ability to accommodate the proposed change without undue consequences for the maintenance of its landscape character, and/or its quality or condition, and/or its particular aesthetic and

Susceptibility of landscape receptor to change	Description and example criteria
	perceptual aspects, with consideration given to planning policies/strategies.
Low	Landscape receptors where the overall character of the landscape receptor or the nature of the individual landscape receptor causes it to have a low susceptibility to change considering its inherent characteristics and where the landscape receptor has a strong ability to accommodate the proposed change without undue consequences for the maintenance of its landscape character, and/or its quality or condition, and/or its particular aesthetic and perceptual aspects, and where such change may be in compliance with planning policies/strategies

Landscape value is a combination of values which are assessed in the landscape baseline, combining any formal landscape designations, and, where there are no designations, judgements based on individual elements of the landscape receptor, for example particular landscape features, notable aesthetic, perceptual or experiential qualities, and combination of these contributors. In addition, it is noted that the GLVIA states that "there should not be over-reliance on designations as the sole indicator of value", and the assessments of landscape value undertaken in this report include consideration of various elements that contribute to landscape value of specific receptors, using best practice standards and professional judgement. Where this occurs, landscape value will be judged based on clearly stated criteria. Table 13-2 below presents differing description criteria for landscape value.

Table 13-2 Description criteria for landscape value

Value attached to Landscape elements	Description and example criteria
High	Landscape receptors forming part of designations (e.g. areas of amenity, scenic routes/views) in the development plan, or at a national or international level, or landscape receptors not designated but where the receptor is judged to be of equivalent value using clearly stated criteria including wildness, naturalness, very strong cultural heritage or natural heritage associations and/or very high recreational value.
Medium	Landscape receptors where value is not formally designated but are of value as good examples of high quality, intact landscapes or landscape features and are deemed to be of relatively high scenic quality. Landscapes or landscape receptors that contain some rare elements, include areas or features which are wild or have a sense of naturalness, strong cultural associations or which have recreational value.
Low	Landscapes that are not formally designated and considered as modified. Areas which do not have particularly scenic qualities, do not include rare elements or landscape features and do not have strongly evident cultural or heritage associations.

In combining the assessment of the landscape value of a landscape receptor with the susceptibility to change of that receptor, it is noted here that a judgement of high landscape value does not necessarily imply that this receptor has a high susceptibility to change, and it is emphasised that this relationship is complex. The combination of these, which determines the landscape sensitivity, is undertaken using professional judgement with the rationale for judgements clearly explained in the description of the assessment of effects or in the baseline study. On this basis landscape receptors have been assigned one of the four following sensitivity ratings:

- Very High
- High
- Medium
- Low

It is noted that sensitivity classifications are generally guided by local and national planning policy, particularly for Landscape Character Areas and County Policy in relation to these, as well as County Wind Energy Policy. However, it is noted that in cases where local variations in landscape receptors merit a smaller scale focused assessment that may differ from the policy this is undertaken using professional judgement and is clearly explained in the main body of the report.

13.2.7.2.2 Assessing Magnitude of Change in the Landscape

The Proposed Development consists of an existing wind farm which has been operational and visible in the existing landscape since its construction and commissioning in 2011. As is evident by the visualisations, the Proposed Development amounts to no change to the existing views of the existing landscape. The term 'Magnitude of Change' is used in the impact assessment tables included in this EIAR. The context of this assessment where the turbines already exist in the landscape, the magnitude of the continued impact of the turbines is considered. In order to facilitate the impact assessments, and effectively determine the continued impact of the existing turbines, the magnitude of change was determined by considering the change that would occur in a 'do-nothing scenario' where the turbines would eventually be removed from the landscape.

The magnitude of change in each landscape character area is a combination of the visual presence - size and scale of the change, the extent of the area to be affected, and the duration and reversibility of the effect. The magnitude of change for each landscape character area was assessed using the definitions outlined in Table 13-3 below.

Table 13-3 Magnitude of Landscape Change Assessment Criteria

Magnitude of Change	Description
Substantial	Where a landscape will experience the loss of key landscape features or the introduction of uncharacteristic additions over a large area. The changes to the landscape are prominent and large in scale. The level of change has an effect on the overall landscape character. The effects are likely long term and may be irreversible.
Moderate	A more limited loss of or change to landscape features over a medium extent which will result in some change to landscape features and aesthetics. Could include the addition of some new uncharacteristic features or elements that would lead to the potential for change in landscape character in a localised area or part of a landscape character area. Would include moderate effects on the overall landscape character that do not affect key characteristics. The effects could be long to medium term and/or partially reversible.

Magnitude of Change	Description
Slight	The loss of or change to landscape features of limited extent, or changes to landscape character in smaller areas. Changes would not affect key characteristics. The addition of any new features or elements to the landscape would only result in low-level changes to the overall aesthetics of the landscapes. Changes to the landscape are more evident at a local level and not over a wide geographical area. The effects could potentially be medium to short term and/or reversible.
Negligible	A change affecting smaller areas of landscape character including the loss of some landscape elements or the addition of features or elements which are either of low value or hardly noticeable. The effects could be short term and/or reversible.

Landscape Effects Assessment Matrix in Table 13-4 below shows the significance of landscape effects, determined by combining the landscape receptor sensitivity and the magnitude of change classifications. Landscape receptor sensitivity is shown in the left-hand first column and magnitude of landscape change is shown in the first row at the top of the table. This table is used as an indicative tool to assist in determining the significance of landscape effects. In different circumstances differing levels of mitigating factors may ultimately result in a different determination of the level of significance. The significance of a landscape effect is based on a balance between the sensitivity of the receptor and the magnitude of effect. The significance of landscape effect is arrived at using a combination of the matrix shown in Table 13-4 and Table 13-5 below.

Table 13-4 Landscape effects significance assessment matrix

	Substantial	Moderate	Slight	Negligible
Very High	Major	Major/Moderate	Moderate	Moderate/Minor
High	Major/Moderate	Moderate	Moderate/Minor	Minor
Medium	Moderate	Moderate/Minor	Minor	Minor/Negligible
Low	Moderate/Minor	Minor	Minor/Negligible	Negligible

The determination of significance uses a seven-point scale, ranging from Major to Negligible. This seven-point scale is translated to the EPA impact assessment classifications of significance, as outlined in Table 13-5 below.

Table 13-5 EPA Significance Classification Table

Matrix Classification Significance	EPA Significance Classification	EPA (2022) Definition of Significance
Major	Profound	An effect which obliterates sensitive characteristics
Major/Moderate	Very significant	An effect, which by its character, magnitude, duration or intensity alters most of a sensitive aspect of the environment
Moderate	Significant	An effect, which by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.

Matrix Classification Significance	EPA Significance Classification	EPA (2022) Definition of Significance
Moderate/Minor	Moderate	**An effect that alters the character of the environment in a manner consistent with existing and emerging baseline trends**
Minor	Slight	**An effect which causes noticeable changes in the character of the environment without affecting its sensitivities**
Minor/Negligible	Not Significant	**An effect which causes noticeable changes in the character of the environment but without significant consequences.**
Negligible	Imperceptible	**An effect capable of measurement but without significant consequences**

13.2.7.3 Assessing Visual Effects

Visual effects relate to changes in views and visual amenity of the surroundings of individuals or groups of people. These may result from changes in content and character of views as a result in changes to the landscape. The assessment of visual effects is based on views shown in photographic visualisations and the potential visibility indicated by the ZTV maps as well as actual visibility on the ground.

It should be noted that in assessing visual effects, there are different types of visual effects:

- **Visual obstruction:** This occurs when there is an impact on a view which blocks the view.
- **Visual intrusion:** This occurs when there is an impact on a view but which does not block the view.

Due to the nature of the Proposed Development and the appearance of wind turbines, visual intrusion occurs more frequently than obstruction.

The likely significant effects of the Proposed Development in terms of visual and landscape effects are informed by the ZTV, on-site appraisals and photographic visualisations. The significance of the effect on visual receptors is a combination of the sensitivity of the receptor as well as the magnitude of the change.

13.2.7.3.1 *Visual Receptor Sensitivity*

Visual Receptor Sensitivity depends on the occupation or activity of the people, as well the extent to which the attention is focused on views and visual amenity, according to the GLVIA Guidelines (2013). Visual receptor sensitivity is assessed as either being Very High, High, Medium, or Low, based on the definition of descriptions and examples set out in Table 13-6 below.

Table 13-6 Visual Receptor Sensitivity

Sensitivity of Visual Receptor(s)	Description
Very High	Included in this category are viewers that are primarily focused on views from this particular location, such as visitors to popular destinations identified for their outstanding views. Residents in close proximity who have primary views of the highest scenic quality in the direction of the development.
High	Includes viewers at designated views or landscapes. Viewers such as residents in close proximity to the viewpoint who have primary views that will be in the direction of the development that may not necessarily be of a particularly scenic quality; viewers at well-known heritage or popular tourist or recreational areas, viewers along scenic or tourist routes.
Medium	Includes viewers who may have some susceptibility to a change in view. Viewers such as residents in medium proximity but who do not have views focused in the direction of the Proposed Development or whose views are not of a particularly scenic quality; those from views which are not designated but may have local recreational uses or those travelling along routes or at view which are considered moderately scenic.
Low	Includes viewers engaged in activities where the focus is not on the landscape or view. These including those travelling along a busy route, viewers at work or engaged in sport not related to views or experience of the landscape.

Viewpoints are specific locations which are representative of key visual receptors. The viewpoint assessment tables in Section 13.5.3 consider all receptors represented in the determination of the visual receptor sensitivity rating for each viewpoint. This determination takes a balanced approach considering the types, sensitivities, and quantities of visual receptors represented. The sensitivity rating given to each viewpoint in Section 13.5.3 considers both the susceptibility of the visual receptors represented as well as the value attached to the available views at that location.

13.2.7.3.2 Magnitude of Visual Change

The turbines of the Proposed Development site already exist in the landscape. Therefore, determining the magnitude of change between an 'Existing' View and 'Proposed View' amounts to no change in scenic amenity and would not effectively describe the current visual impact using standard best practice LVIA methodology ('Receptor Sensitivity' X 'Magnitude of Change'). In order to facilitate the visual impact assessments included in Chapter 13, and effectively determine the visual impact of the existing turbines, the magnitude of change was determined by considering the change that would occur in a 'do-nothing scenario' where the turbines would not be visible in the landscape. A comprehensive description of the visual impact assessment of each photographic visualisation is detailed in the Section 13.5.6 - Viewpoint Assessment Tables.

The magnitude of the visual change resulting at each viewpoint is a combination of scale of the change, the extent of the area to be affected and the duration and reversibility of the effect, determined by reviewing the photographic visualisations and wireline images for each viewpoint. The magnitude of change is determined in accordance with the definitions and descriptions included in Table 13-7 below.