

MWP

Environmental Impact Assessment Report (EIAR)

Chapter 11 Landscape and Visual

**Dernacart Wind Farm
110kV Substation and Grid Connection**

Statkraft Ireland

October 2024

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11. Landscape and Visual

11.1 Introduction

This chapter considers the potential effects on the landscape and visual receptors, arising from the Proposed Development.

The Proposed Development consists of an underground wind farm collector cable overlain with an access track (approximately 2.45km in length), a 110kV substation and a 110kV underground Grid Cable (approximately 10.85km in length, from the proposed substation to the consented 110kV substation at Bracklone, County Laois.

A full description of the Proposed Development is provided in Chapter 2 Description of the Proposed Development of this Environmental Impact Assessment Report (EIAR).

The assessment comprises:

- A review of the existing receiving environment;
- Prediction and characterisation of impacts and their likely effects;
- Evaluation of the significance of likely effects; and
- Consideration of mitigation measures, where appropriate.

11.1.1 Competency of Assessor

This Landscape and Visual Assessment was carried out by Caitríona Fox, BA MSc. Caitríona has over twenty years' experience in Environmental Impact Assessment and has work on Landscape and Visual Assessments (LVIA) for a range of developments including wind energy developments, marine developments, and large scale industrial developments.

11.2 Methodology

Landscape and visual impact assessments are related but are different concepts. **Landscape Impact Assessment (LIA)** is about the appraisal of *components* of the landscape including fabric and *character* and how changes may affect these. The landscape fabric comprises features such as vegetation, landform and built elements. Landscape character is the distinctive pattern of elements that occurs consistently in a particular landscape. An evaluation of these features and the overall character will highlight the quality and principal sensitivities of the landscape and measures its ability to accommodate the type of change associated with the development.

The **Visual Impact Assessment (VIA)** considers the visual amenity of the site and the surrounding area, and identifies potentially sensitive visual receptors and the approximate extent of visibility of the development. Visual impacts are the effects on visual receptors of the changes in available views through intrusion or obstruction and whether opportunities to enjoy views are improved or reduced.

11.2.1 Guidelines and Best Practice

This landscape and visual impact assessment report has been prepared in accordance with the following references:

- The Institute of Environmental Assessment / Landscape Institute publication entitled 'Guidelines for Landscape and Visual Impact Assessment' (3RD Ed 2013).
- Scottish Natural Heritage (SNH) Environmental Assessment Handbook—Guidance on the Environmental Impact Assessment Process Appendix 2: Landscape and Visual Impact Assessment (5th Ed 2018)
- Environmental Protection Agency document entitled 'Guidelines on the Information to be Contained in Environmental Impact Statements' 2022

11.2.2 Study Area

According to Section 5.2 of the GLVIA (2013) *"The study area 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."*

The Proposed Development consists of an underground wind farm collector cable and access road, a 110kV substation and an underground 110kV grid cable which will be laid entirely within the public road network

It is anticipated that the proposed substation and wind farm collector cable is likely to be difficult to discern beyond approximately 2km and is not likely to give rise to significant landscape or visual impacts beyond approximately 1km. This is because of the nature of these elements of the development and the context of the development setting. Therefore, the assessment area considers a landscape and visual envelope of 2km from the proposed substation site and wind farm collector cable.

The proposed underground 110kV grid cable has the potential for effects in the immediate vicinity only, therefore the study area includes an area of approximately 100 metres to either side of the proposed cable. This study area is appropriate as it is proportionate to the nature of this element of the Proposed Development, which is an underground cable laid in a trench, and also to its likely effects which are very localised and limited.

11.2.3 Desktop Study

Desk studies and site surveys were undertaken to determine the baseline landscape and visual conditions. The baseline conditions provide a description and evaluation of the existing site and its surroundings. Initially a desk study was undertaken to assemble relevant information on landscape fabric, landscape character and the overall visibility of the site on the surrounding area. The following outlines the documents that were referenced and the resources utilised for the desk study. Information collated in the desk study was confirmed by field studies.

- Laois County Development Plan 2021-2027
- Offaly County Development Plan 2021-2027
- GIS datasets, aerial imagery, OSI Discovery Series mapping, historic mapping
- Dernacart Wind Farm LVIA (Fehily Timoney 2019)

11.2.4 Assessment Criteria

The evaluation of the effects of the development has been undertaken in accordance with the recommended assessment methodology outlined in ‘The Institute of Environmental Assessment Guidelines for Landscape and Visual Impact Assessment’ (3rd Ed 2013).

For each effect, the sensitivity of the landscape and visual receptors and the magnitude of the effect on the landscape and visual receptors have been considered.

Sensitivity is considered in terms of susceptibility to change and the value attached to landscape receptor or view experienced.

Magnitude is considered in terms of size or scale, the geographical extent and duration and reversibility of the effect and judgement is made in accordance with the criteria set out in **Table 11.1**.

Table 11.1 Magnitude/degree of Change

Magnitude of Change	Landscape Change	Visual Change
High	The proposed scheme would <ul style="list-style-type: none"> • result in effects that are at a complete variance with the landform, scale and pattern of the landscape. • Would permanently degrade, diminish or destroy the integrity of valued characteristic features, elements and /or their setting • Would cause a high quality landscape to be permanently changed and its quality diminished 	The proposal becomes the dominant feature or forms a significant and immediately apparent part of the scene that affects and changes its overall character
Medium	The proposed scheme would <ul style="list-style-type: none"> • Be out of scale with the landscape or at odds with the local pattern and landform. • Will leave an adverse impact on a landscape of recognised quality 	The proposals may form a visible and recognisable new element within the overall scene and may be readily noticed by the observer or receptor
Low	The proposed scheme would:- <ul style="list-style-type: none"> • Not quite fit into the landform and scale of the landscape- • Affect an area of recognised landscape character 	The proposals constitute only a minor component of the wider view, which might be missed by the casual observer or receptor. Awareness of the proposals would not have a marked effect on the overall quality of the scene
Negligible	The proposed scheme would:- <ul style="list-style-type: none"> • Complement the scale, landform and pattern of the landscape- • Maintain existing landscape quality 	No part of the development or only a very small part of the proposals is discernable and/or is at such a distance that it is scarcely appreciated. Consequently has very little effect on the scene

Adapted from criteria of Terence O'Rourke plc and Nicholas Pearson Associates Sourced from ‘Guidelines for Landscape and Visual Impact Assessment’ (2ND Ed 2002).

In determining the overall significance of the effect, judgement is made in accordance with the with the classifications used by the EPA (2022). See **Table 11.2**. This set out how sensitivity and magnitude have been linked in the determination of overall significance.

Table 11.2 Significance of Effects

		Sensitivity of Receptor			
		High	Medium	Low	Negligible
Magnitude of Change	High	Profound	Very significant - Profound	Moderate- Profound	Imperceptible - Very Significant
	Medium	Significant - Profound	Moderate – Very significant	Slight - Moderate	Imperceptible - Slight
	Low	Moderate - Very Significant	Slight - Moderate	Slight- Moderate	Imperceptible - Slight
	Negligible	Not significant - Moderate	Not significant - Slight	Imperceptible - Slight	Imperceptible - Not Significant

Source: Adapted from EPA (2022) Guidelines

11.2.5 Statement on Limitations and Difficulties Encountered

There were no limitations or difficulties in preparing this assessment.

11.3 Baseline Environment

11.3.1 Application Site

11.3.1.1 Substation and Collector Cable

The proposed substation site lies in the townland of Barranaghs Co Offaly immediately to the north of the R423 regional road. The site is rural in nature with land comprising mainly a mix of marginal and modified scrubland with mature and semi mature trees. The main body of the site is largely flat terrain and is enclosed along all boundaries by mature and semi mature hedgerows and trees. Immediately beyond the site to the west is a private access road and agricultural lands. A private access also flanks the eastern boundary with a conifer plantation to its east. A Coillte conifer plantation lies immediately to the north of the site while the R423 runs immediately to the south of the site. The consented Dernacart windfarm is located on lands approximately 2.3km to the northwest of the site.

Plate 11.1 Typical landcover within substation site (northern section)



Plate 11.2 Typical landcover within substation site (central section)



Land cover along the proposed wind farm collector cable route includes areas of modified agricultural land and forestry land including trackways, degraded and cutaway peatland and conifer plantations.

Plate 11.3 Typical landcover along proposed route of the wind farm collector cable



11.3.1.2 Grid Cable Route

The route of the underground cable from the proposed substation in Barranaghs Co. Offaly to the connection point at Bracklone Substation, Co Laois will follow the local and regional road network. Landcover along the Proposed underground grid cable route consists entirely of local and Regional road corridors, which is a hard surfaced area, with grass or vegetated verges in some sections, as well as sections of wall, footpaths, tree lines, and hedgerow vegetation. For the most part the route is predominantly rural in character, before entering the suburbs of Portarlinton town.

Plate 11.4 Regional R423 in the vicinity of the proposed site entrance



11.3.2 Topography and Drainage

11.3.2.1 Substation and Collector Cable

The proposed substation site is located on flat, but very wet land with poor drainage. The elevation of the site for the proposed substation is approximately 70m AOD. There are no EPA mapped surface water features traversing the proposed substation site. The River Barrow flows in an easterly direction approximately 350m south of the proposed substation site on the opposite side of the R423 road. Field surveys have identified land drains along the northern, western and southern boundaries of the proposed substation field.

The lands along the wind farm collector cable route is predominately low-lying flat terrain with the highest elevation at approximately 80mAOD. The wind farm collector cable starts from the permitted Dernacart wind farm and crosses Cottoner's brook (EPA mapped water course). The crossing will be facilitated via a new clear span bridge structure for both the collector cable and the access road. Cottoners brook stream flows in a southerly direction for approximately 1.8km before the confluence with the River Barrow. There are several deep drainage ditches and minor shallow ditches along the collector cable route.

Plate 11.5 Poorly drained lands within Substation Site



11.3.2.2 Grid Cable Route

There are a number of streams/watercourses, located along and in proximity to the route of the 110kV underground grid connection cable. The majority of the water features along the proposed cable route are however well hidden by vegetation. The most notable is the stone arch bridge at Kilnahown over the river Barrow, where the bridge and river are evident, as well as a bridge at Garryhinch over the Clonygowan stream.

Plate 11.6 Bridge at Kilnahown over River Barrow



Plate 11.7 Bridge at Garryhinch over Clonygowan stream (on northern side of R423)



Plate 11.8 Bridge at Garryhinch over Clonygowan stream (on southern side of R423)



11.3.3 Settlement and Transport

11.3.3.1 Substation and Collector Cable

The nearest urban settlements to the site include Garryhinch village approximately 1.3km to the northeast, Mountmellick town approximately 3km to the southwest, Clonygowan village, approximately 5km northeast, and Portarlinton town, approximately 6km east to northeast. These towns and small villages provide a range of local community facilities, including schools, sporting clubs, churches, general shops and post offices.

The closest residential properties are a cluster of dwellings approximately 220m to the west and 310m to the east of the proposed 110kV substation site.

The nearest residential dwelling to the proposed access track and 33kV underground electrical cabling is approximately 430m to the south.

The primary transport route in the vicinity of the site is the regional R423 roadway.

11.3.3.2 Grid Cable Route

Settlement patterns along the proposed UGC route predominately exhibits sections of ribbon development and one-off dispersed detached housing. As the route approaches Portarlinton, it transitions through higher density residential and commercial developments.

Table 11.3 below outlines settlement and transport network along the route.

Table 11.3 Settlement and Transport along UGC Route

Section	Transport Network	Route Description	Settlement
Section 1 R423 to L-50183 (3.63km)	Regional Road	Route travels eastward on the R423 for approximately 3.63km to the intersection with the L-50183 passing through the townlands of Garryhinch and Annamoe.	Settlement in the form of detached houses and farmsteads is predominantly found along this section of the proposed route, with the village of Garryhinch being the main community settlement in this part of the study area.
Section 2 L-50183-3153 (1.88km)	Local Road	At the intersection of the R423 and the L-50183 the UGC proceeds in a southerly direction along the L-50183 for approximately 360m passing through the townlands of Garryhinch and Annamoe and crosses over the River Barrow continuing south east passing through the townlands of Coolnavarnoga, Coolaghy, and Kilbride.	Settlement is sparse along this section of the route and primarily comprises scattered houses and farms

Section	Transport Network	Route Description	Settlement
Section 3 L-3153 to R419 (1.44km)	Local road	The route then turns left to the L-3153 and continues north on this road network for approximately 1.44km until its intersection with the R419 passing through the townlands of Kilbride and Ballymorris.	Again settlement tends to be very sparse in this section of the route and primarily comprises scattered houses and farms
Section 4 R419 to L-3158 (120m)	Regional Road	At the R419 the route turns left and travels north for approx. 120m and then turns east on to the L-3158.	Settlement is limited along this section of the route with only one existing residential dwelling.
Section 5 L-3158 to R420 (2.56km) Canal Road	Local road	The route continues north east passing through the townlands of Ballymorris, Cooltederry and Bracklone using the L-3158 for approximately 2.56km until its intersection with the R420.	Settlement tends to be very sparse for approximately 1km along this section of the route and primarily comprises ribbon development one off houses with some clusters of residential dwelling. Settlement along the remaining 1.56km of this section of the route is more built up with a number of clustered residential development estates, sporting groups and educational facilities.
Section 6 R420 to Bracklone Substation	Regional road	The route then turns right onto the R420 and continues east on the R420 for approximately 900m and then diverts north onto the access road that leads to the Bracklone substation.	Residential settlement in the immediate vicinity along this section of the route is limited with scattered residential dwellings along with a number of commercial businesses.

11.3.4 Landscape Policy Context and Designations

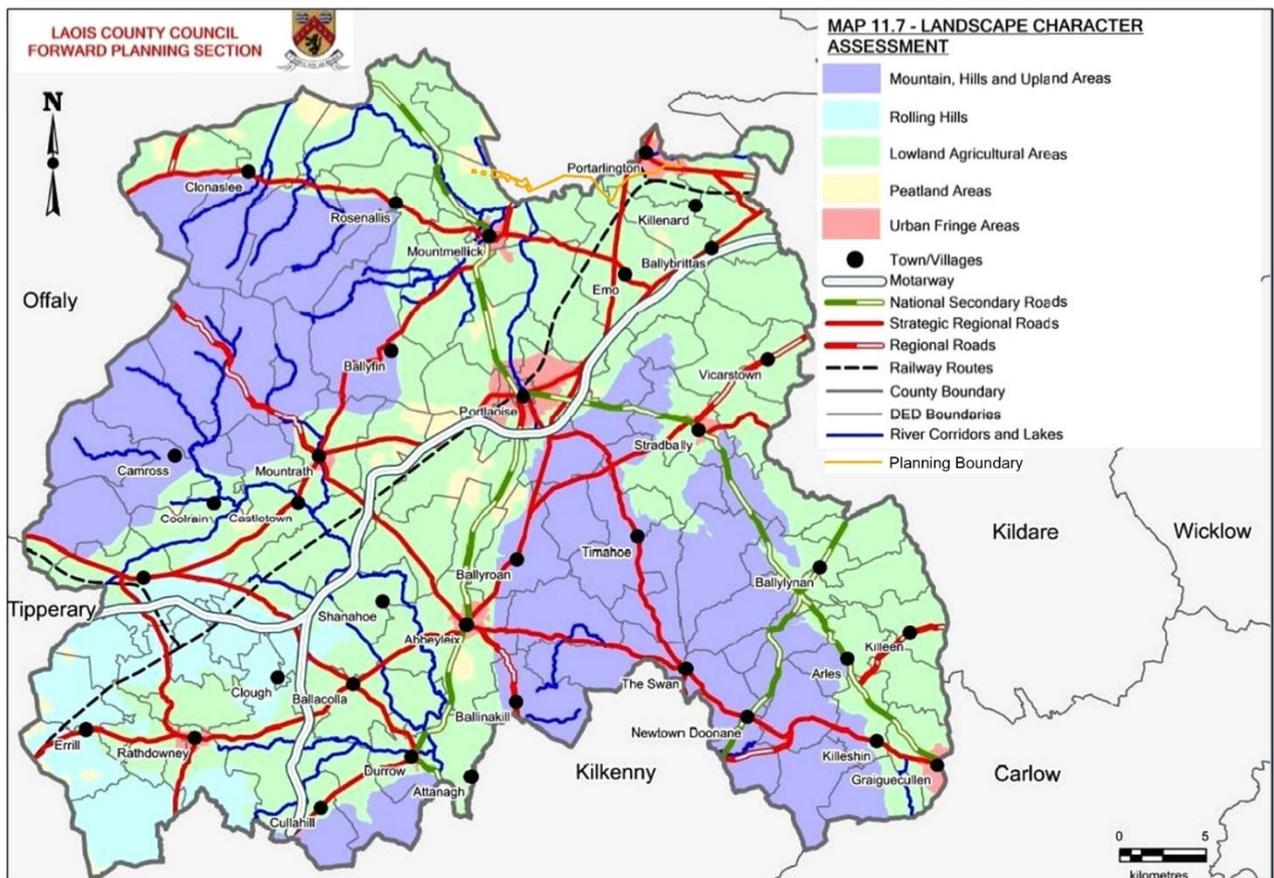
The proposed development is located in the administrative area of both County Offaly and County Laois. The County Development Plans (CPDs) of both counties were consulted to identify relevant policy and designations pertaining to the location of the Proposed Development.

11.3.4.1 Laois County Development Plan

11.3.4.1.1.1 Landscape Character

Appendix 6 of the Laois County Development Plan 2021-2027 provides a landscape character assessment of the county. The landscape assessment divides the county in 6 distinct Landscape Character Types (LCT). According to Map 11.7 of the Landscape Character Assessment, the site of the proposed development is mostly within LCT2 “Lowland Agricultural Areas”, while also entering into LCT 5 ‘Urban Fringe Areas’.

Figure 11.1 LCTs of proposed development land as per Laois Landscape Character Assessment



Source Adapted from Map 11.7 Landscape Character Assessment County Laois County Development Plan 2021-2027 Chapter 11 Section 11.10

The assessment states that “Lowland Agricultural Areas” LCT covers the largest proportion of County Laois and is comprised primarily of pastoral and tillage agriculture. The assessment notes that the Lowland Agricultural Areas” LCT has been developed more extensively than other the LCT’s, particularly in the north and east where there is development pressure from the large towns as well as the Dublin metropolitan area. This has resulted in significant changes to the landscape character and it is crucial that future development of this LCT is carried out sensitively

and with particular reference to the rural nature of the landscape. (Appendix 6 Laois County Development Plan 2021-2027)

The assessment highlights that “Much of the lowlands have an enclosed character with well-treed road corridors, dense hedgerows, parkland and areas of woodland. Views of landmarks within the landscape and of the surrounding upland areas are a characteristic of this area and must be retained because the interaction between the lowlands and hills/uplands is an important feature of this LCT”. (Appendix 6 Laois County Development Plan 2021-2027)

Landscape Policy Objectives for Lowland Agricultural Areas are as follows:

LCA 12	Recognise that this lowland landscape character area includes areas of significant landscape and ecological value, which are worthy of protection, particularly the 18th and 19th century estate landscapes and associated parkland & woodland to develop them as a tourism resource.
LCA 13	Continue to permit development that can utilise existing structures, settlement areas and infrastructure, whilst taking account of the visual absorption opportunities provided by existing topography and vegetation
LCA 14	Recognise that the lowlands are made up of a variety of working landscapes, which are critical resources for sustaining the economic and social wellbeing of the county
LCA 15	Promote good agricultural practices to create a sustainable rural economy and support incentives for smaller rural/family farms to manage their land to avoid loss of hedgerows and field patterns.

Regarding the ‘Urban Fringe Areas’ LCT, the assessment provides that “the defining characteristics include the radiating road routes on which development has taken place in a ribbon-type physical form. Another characteristic of this LCT is the frequently disused or underused nature of former agricultural lands which are now zoned and set aside for future development or may be required for orbital route schemes”.

Landscape Policy Objectives for Urban Fringe Areas are as follows:

LCA 28	Diversify the urban fringe by developing mixed-use amenity areas, which will create a landscape buffer creating a transition between urban and rural areas
LCA 29	Define the urban fringe with planting of native species and mixed woodland to tie into existing rural landscape

11.3.4.1.1.2 Landscape Sensitivity

Section 11.10 of the Laois County Development Plan 2021-2027 states that, “Sensitive areas include upland areas, visually open and expansive areas and areas in the vicinity of natural heritage or built heritage assets or scenic views”. Table 11.6 of Section 11.10 incorporates a specific sensitivity rating for each of the LCTs. The assigned sensitivity rating for Lowland Agricultural Areas and Urban Fringes, which are LCTs associated with the proposed development lands, is classed to be of **low sensitivity** and described as being “*areas with the capacity to generally accommodate a wide range of uses without significant adverse effects on the appearance or character of the area*”.

Figure 11.2 Extract of Table 11.6 Laois County Development Plan 2021-2027

Sensitivity	Landscape Character Area and Special Features	Description
Low Sensitivity	Lowland Agricultural Areas, Urban Fringes	Areas with the capacity to generally accommodate a wide range of uses without significant adverse effects on the appearance or character of the area

11.3.4.2 Offaly County Development Plan

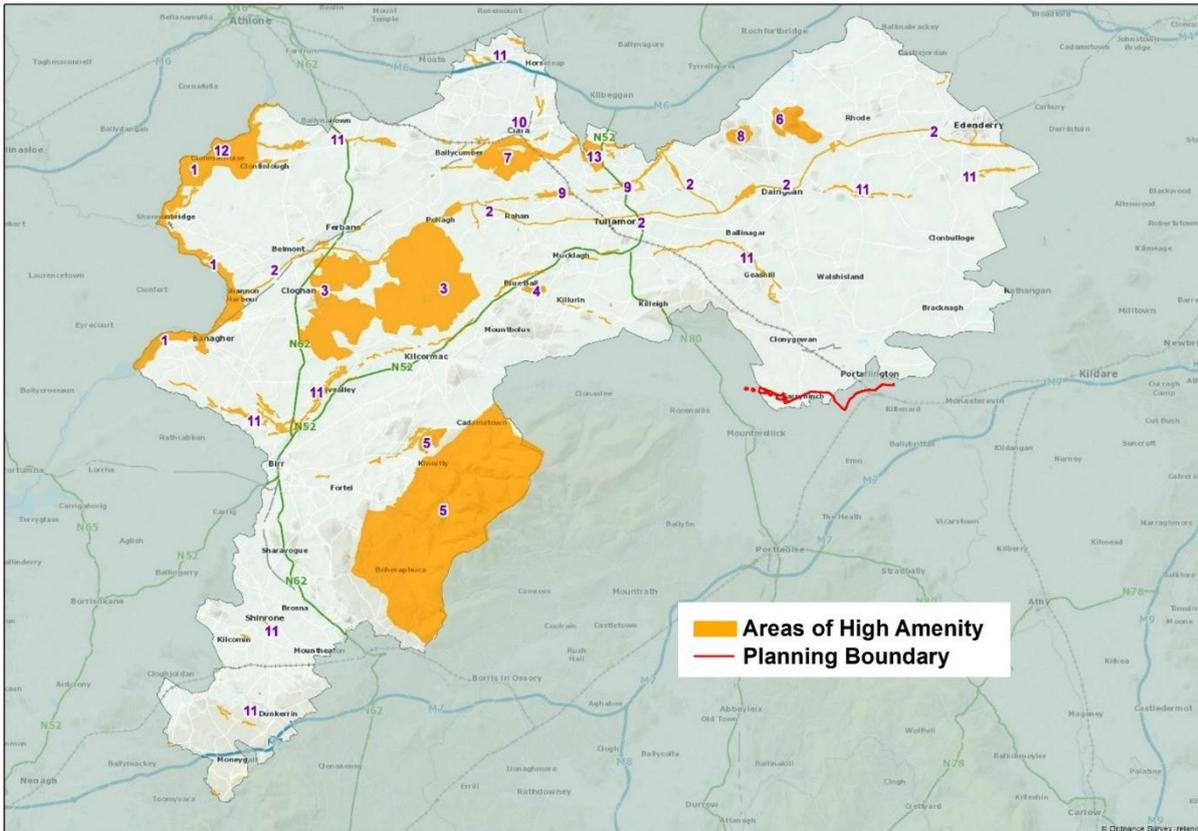
11.3.4.2.1.1 Landscape Character

Offaly County Council does not have a landscape character assessment undertaken. The landscape of County Offaly is described in Chapter 4 of the CPD.

Chapter 4 Section 4.13 of the County Development Plan, however provides for Areas of High Amenity (AHA) which are defined as “*areas worthy of special protection / enhancement due to their uniqueness and scenic / amenity value. These designations are additional to statutory national and European designations which may overlap with these AHA. It is a priority of the Council to protect and preserve the AHAs in Table 4.17 and Figure 4.18*”.

The are no designated ‘Areas of High Amenity’ in proximity to the proposed development lands.

Figure 11.3 Proposed Development relative to Areas of High Amenity in County Offaly



Source: Adapted from Offaly CDP Figure 4.18 Areas of High Amenity in County Offaly

11.3.4.2.1.2 Landscape Sensitivity

The sensitivity of the landscapes of County Offaly varies and are classified within the following sensitivity classes: **Low**, **Moderate** and **High** Sensitivity. Figure 4.22 of the CDP, as shown in **Figure 11.4** below, illustrates the landscape classification areas for the county in broad terms.

The capacity of each landscape character type to absorb new development will largely depend on the sensitivity of the landscape type. Table 4.18, 4.19 and 4.20 of the CDP, lists the Landscape Sensitivity areas in the county, their sensitivity and acceptability to development. A summary of these tables is provided in **Table 11.4** below.

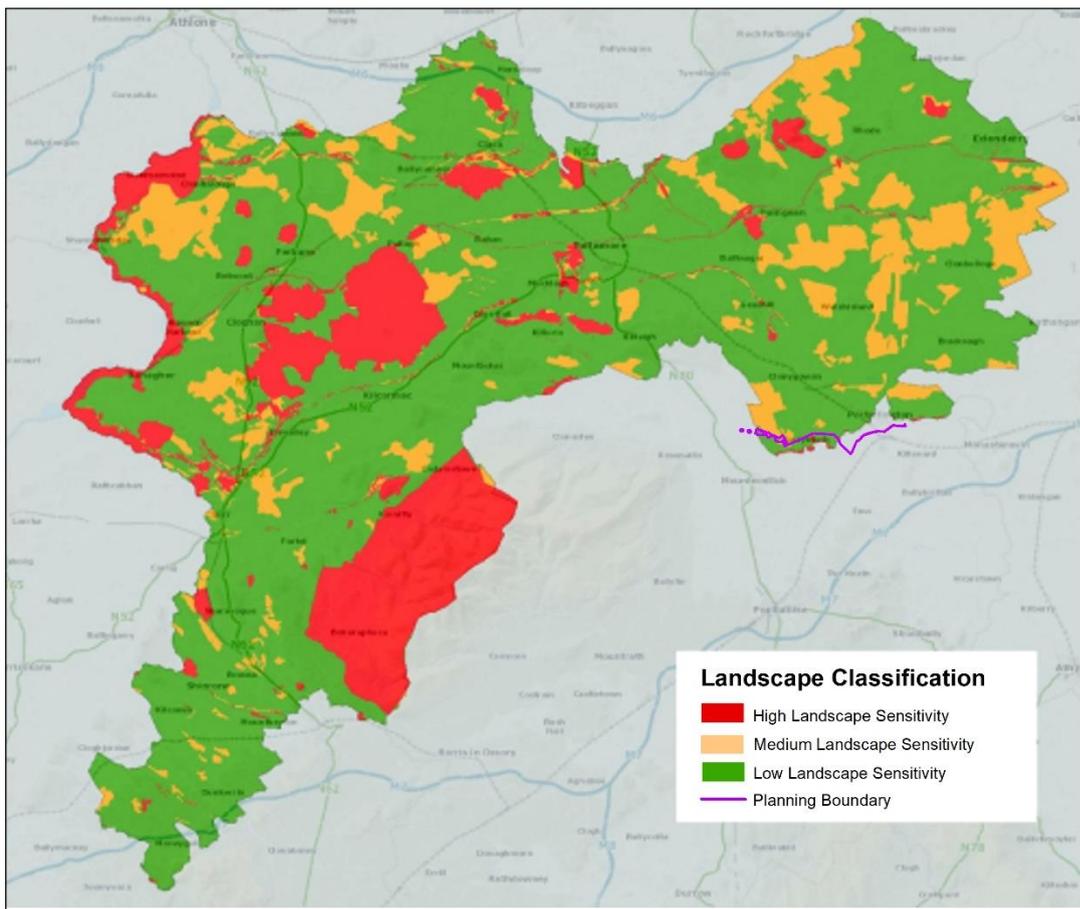
Table 11.4 County Offaly Landscape Sensitivity Overview

Sensitivity Classification	Overview	Acceptability of Development for consideration
Low Sensitivity Areas	Low sensitivity areas are robust landscapes which are tolerant to change, such as the county’s main urban and farming areas, which have the ability to accommodate development.	A wide range of development subject to appropriateness / conditions

Sensitivity Classification	Overview	Acceptability of Development for consideration
Moderate Sensitivity Areas	Moderate sensitivity areas can accommodate development pressure but with limitations in the scale and magnitude. In this category of sensitivity, elements of the landscape can accept some changes while others are more vulnerable to change.	Some form of development subject to appropriateness / conditions.
High Sensitivity Areas	High Sensitivity Areas are vulnerable landscapes with the ability to accommodate limited development pressure. In this category of landscape, landscape elements are highly sensitive to certain types of change. If pressure for development exceeds the landscapes limitations the character of the landscape may change	Very limited development subject to appropriateness / conditions.

According to the sensitivity map the development lands for the proposed substation and underground grid cable are within Low Sensitivity Areas, however are in proximity to River Barrow which is designated a High Sensitivity Area. The development lands for the proposed wind farm collector cable and access road while for the most part are also located within Low Sensitivity Areas, a section of the route passes through or within proximity to an area classed to be of Moderate Sensitivity.

Figure 11.4 Landscape Sensitivity of proposed development land as per Offaly Landscape Classification



Source: Adapted from Offaly CDP Figure 4.22 Landscape Classification

11.3.5 Designated Views and Prospects

11.3.5.1 County Laois

Section 11.11.1 of the Laois CDP relates to Views and Prospects. The plan states that “*Scenic routes and protected views consist of important and valued views and prospects within the county*”. Table 11.7 and Map 11.8 of the Laois CDP indicates the specific scenic views of the landscape, many of which are located along scenic routes and include built and archaeological features.

Policy Objectives for the Protection of Scenic Views and are as follows:

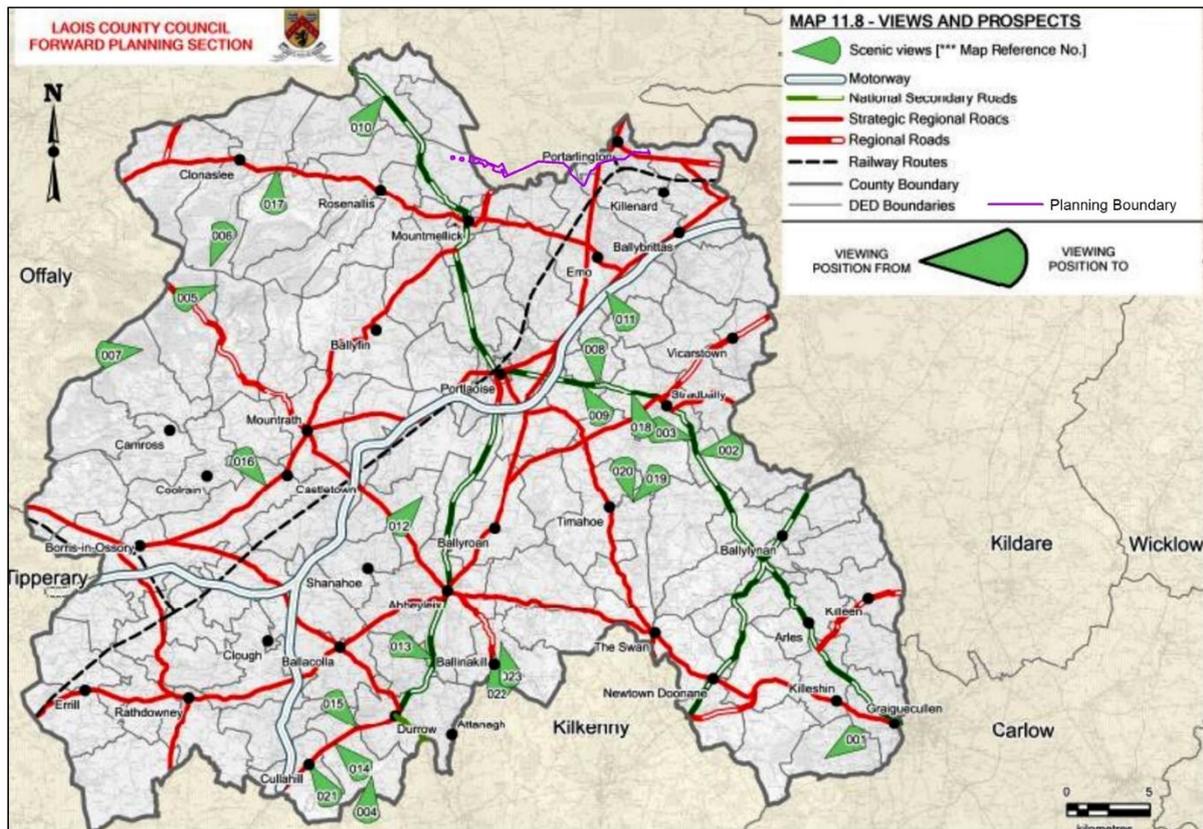
SV1	Protect views from designated scenic routes indicated in Table 11.7 and Map 11.8 (Scenic Views and Prospects in County Laois) of the Plan, by avoiding any development that could disrupt the vistas or disproportionately impact on the landscape character of the area, thereby affecting the scenic and amenity value of the views.
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The plan however notes that while there is a need to protect and conserve views in order to protect the character of the county, it is acknowledged that some development may be needed in certain circumstances.

Of the 23 designated amenity views and prospects listed in Table 11.7 and shown on Map 11.8, there is only one, namely viewpoint V008, of potential relevance to the proposed development i.e. a view/prospect that is within the indicated direction of that view and in the broader general direction of the site of the proposed development.

V008 are views however from the N80 in the townlands of Stradbally with views towards Rock of Dunamase which is over 13km to the south of the proposed development site.

Figure 11.5 Proposed Development Lands relative to Designated Views and Prospects County Laois



Source: Adapted from Laois CDP Map 11.8 Views and Prospects in County Laois

11.3.5.2 County Offaly

With regard to designated views and prospects within Offaly, its CDP states that: *County Offaly contains a number of valuable views and prospects which offer a very attractive cross sectional view and overall impression of differing landscapes. The image below shows the Key Scenic Views and Prospects from which the view is experienced and to the particular amenity or area which is visible from that view.*

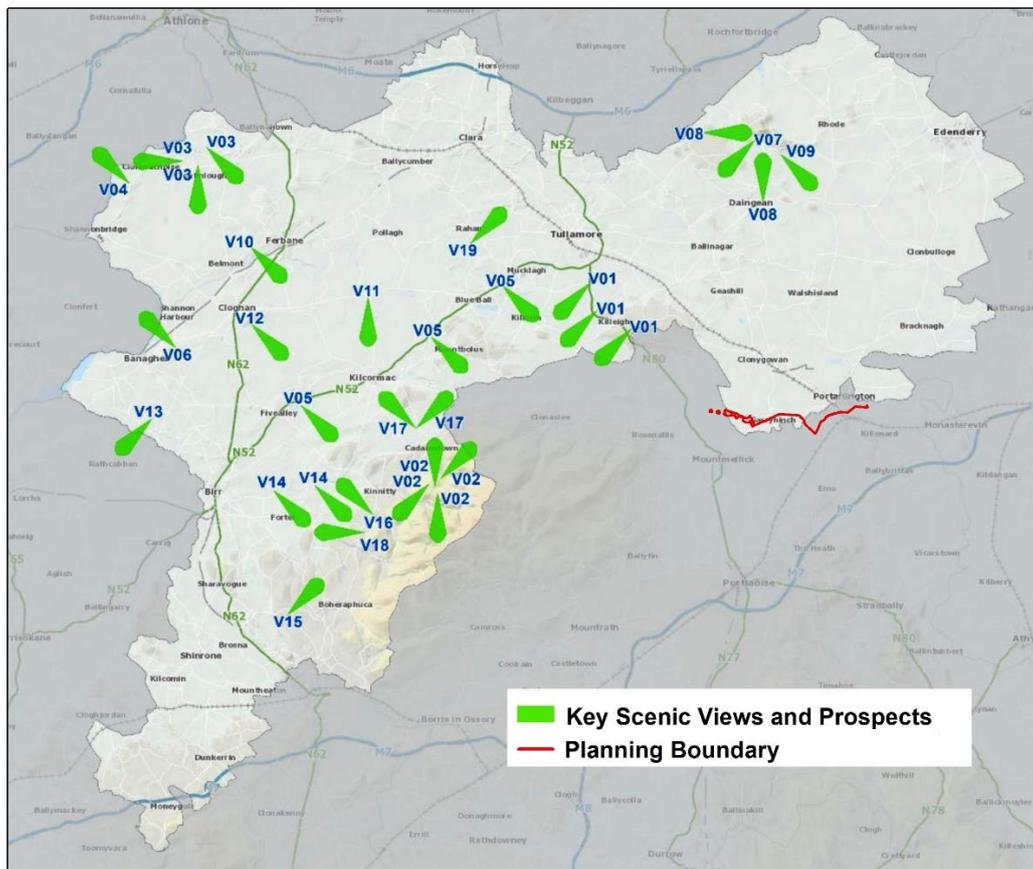
Policy Objectives for the Protection of Key Scenic Views, Key Prospects and Key Amenity Routes are as follows:

BLO-26	It is an objective of the Council to protect Key Scenic Views and Key Prospects contained in Table 4.21, and Key Amenity Routes as listed in Table 4.22 from inappropriate development.
BLO-27	It is an objective of the Council to ensure that proposed developments take into consideration their effects on views from Key Scenic Views and Prospects and Key Amenity Routes and are designed and located to minimise their impact on this views and prospects.

Table 4.21, and Figure 4.24 of the Offaly CDP indicates the Key Scenic Views and Prospects ‘from’ i.e. the specific road and/or townlands from which the view is experienced and ‘to’ the particular amenity or area which is visible from that view, while Table 4.22 of the Offaly CDP list the routes that are designated as Key Amenity Routes within Offaly.

None of 19 designated views and prospects listed in Table 4.21 of the Offaly CDP, or the two Key Amenity Routes listed in Table 4.22 of the Offaly CDP has the potential for views in the direction of the development lands

Figure 11.6 Proposed Development Lands relative to Designated Views and Prospects County Offaly



Source: Adapted from Offaly CDP Figure 4.24 Key Scenic Views and Prospects

11.3.6 Built Heritage

There are no known archaeological sites or monuments within the boundary of the proposed development or in the immediate vicinity. Several Recorded Monuments and Places (RMP) are located in the vicinity, mostly at distances of over 200m from the site boundary. The nearest known monuments are listed in the **Table 11.5** below. The nearest Protected Structures recorded within 1km radius of the application site are listed in **Table 11.6**.

Table 11.5 List of Recorded Monument in the vicinity of the proposal

RMP No.	County	Townland	Classification	Six-inch map depiction	Distance to UGC
OF033-009	OFFALY	Garryhinch	Redundant record	Not indicated	574m
OF033-012	OFFALY	Barranaghs	Enclosure	Not indicated	760m
OF033-013	OFFALY	Garryhinch	Enclosure	Not indicated	294m
OF033-014	OFFALY	Garryhinch	Designed landscape - tree-ring	Indicated	265m
LA005-004	LAOIS	Cooltedery	Castle - motte and bailey	Hachured	558m
LA005-005	LAOIS	Cooltedery	Enclosure	Not indicated	347m
OF034-009	OFFALY	Shanderry	Glassworks	'Glasshouse'	918m
LA004-002	LAOIS	Cooltedery	Redundant Record	Not indicated	833m
LA005-010002 <i>ALSO, NIAH 128005-01 And RPS 546</i>	LAOIS	Ballymorris	Folly (c. 1740), known as the Spire		867m
LA005-06	LAOIS	Lea	Castle	'in ruins'	994

Table 11.6 Structures/buildings listed in the NIAH

Reg.No.	Original Use	In Use As	Townland	County	Rating	Distance to UGC
14933007	church/ chapel	church/ chapel	Garryhinch	OFFALY	National	61m
14933009	post box	post box	Garryhinch	OFFALY	Regional	5m
14933011	icehouse	n/A	Garryhinch	OFFALY	Regional	309m
14933012	Bridge (Kilnahown)	bridge	Garryhinch	OFFALY	Regional	Adjacent
149330403	Woodbrook house	house	Coolnavarnoge/ Coolaghy	LAOIS	Regional	840m
1493302-4	Gate Lodge	n/a	Coolnavarnoge/ Coolaghy	Laois	Regional	360m
12800401	Bridge (Blackhall or Moore's)	bridge	Ballymorris	LAOIS	Regional	Adjacent
12800502	railway station	railway station	Coolterery	LAOIS	National	72m
12800503	foot bridge	foot bridge	Coolterery	LAOIS	Regional	264m
12800504	post box	post box	Cooltedery	LAOIS	Regional	264m
12800554	house	house	Cooltedery	LAOIS	Regional	264m

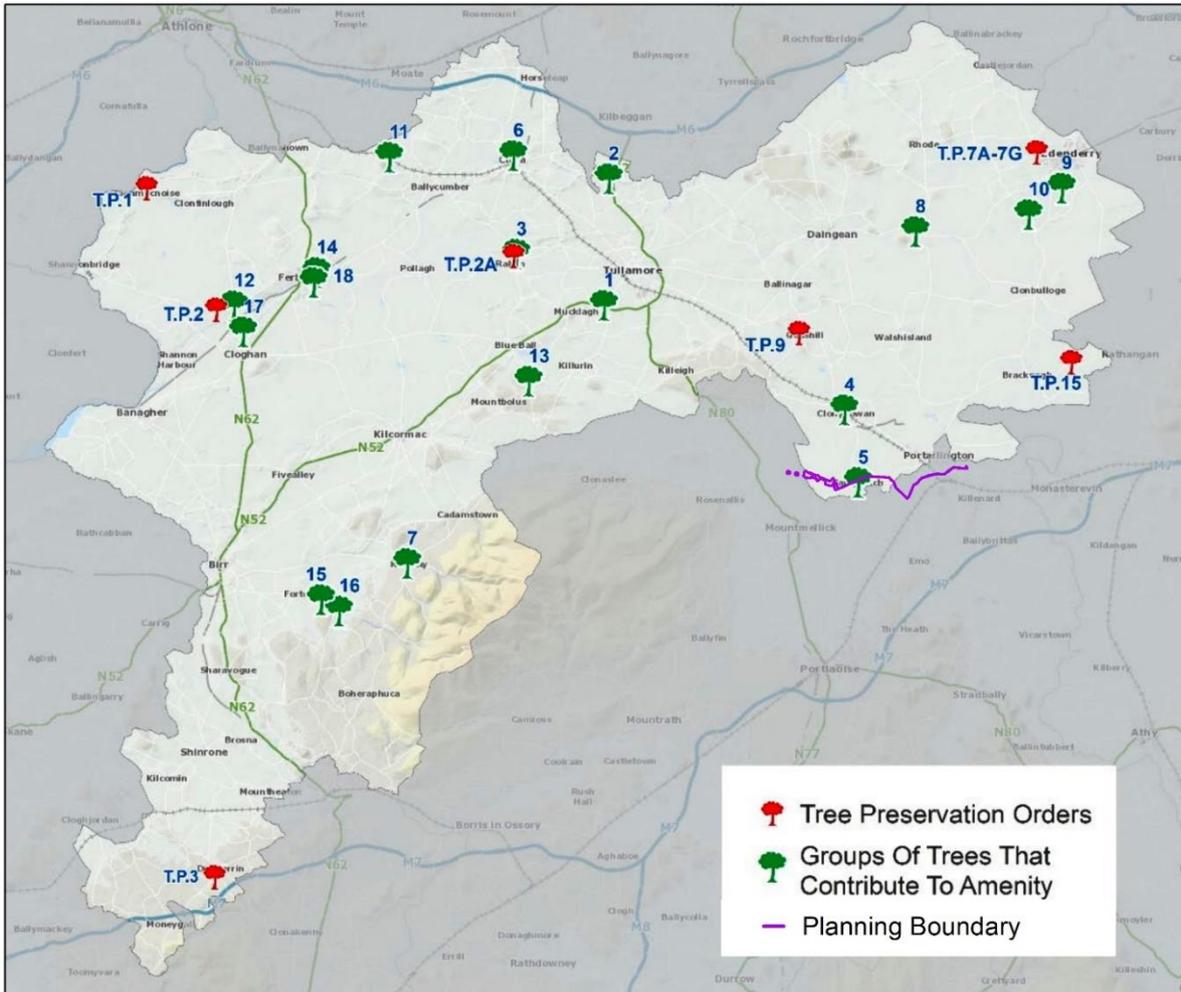
11.3.7 Tourism, Recreation and Amenities

Whilst there are some amenity features within the study area, namely the Garryhinch forest recreational area, the river Barrow which is a popular fishing spot and Portarlinton Golf Course, there is not a strong sense of amenity or recreation, and instead, much of the local landscape value relates to subsistence of the rural economy as opposed to any highly susceptible naturalistic, scenic or tourism values.

The Offaly CDP stated that “Trees, forestry and hedgerows make a valuable contribution to the landscape and visual amenity of County Offaly...Hedgerows, in many instances double hedgerows, often form townland boundaries and as such are an important historic resource. These hedgerows also act as wildlife corridors” (Section 4.9 Offaly CDP 2021-2027). It is an objective of the Council aims to protect individual trees, groups of trees or woodland, which are of environmental and/or amenity value. Figure 4.11 of the CDP illustrates the locations of Tree Preservation Orders and Groups of Trees within the county that contribute to amenity.

Of the 18 designated groups of trees considered of significant value to the environment there is only one group in proximity to the proposed development lands. These are trees at Garryhinch Church.

Figure 11.7 Proposed Development relative to Location of Tree Preservation Orders and Groups of Tress that Contribute to Amenity



Source: Adapted from Offaly CDP Figure 4.11 Protected trees in County Offaly

The Laois CDP also recognises that Trees, Woodlands and Hedgerows also make a positive contribution to the county’s landscape.

Trees, either individually or in groups also make an important contribution to the landscape of many of the country house demesnes throughout the county. Map 11.5 of the Laois CDP illustrates the important tree groups have been identified in Map 11.5.

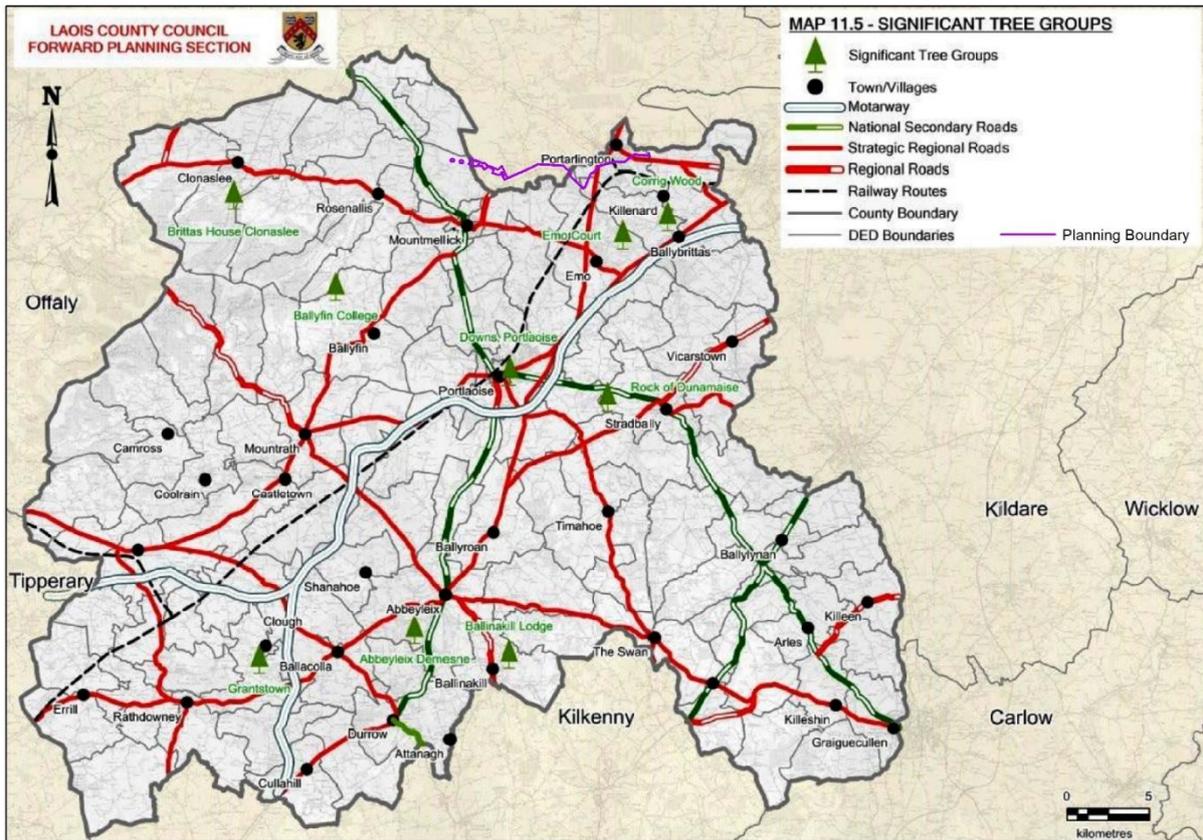
The plan notes that “In cases where removal is necessary, the planting of an equivalent length of native hedgerow will be required as a condition of planning permission”.

Policy Objectives for Trees, Woodlands and Hedgerows are as follows:

BNH 26	Protect individual trees, groups of trees and woodland in the interests of landscape conservation (including townscapes) and nature conservation as part of the development management process.
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BNH 27	Protect existing hedgerows, particularly of historical and archaeological importance of townland boundaries, from unnecessary removal in order to preserve the rural character of the countryside and promote biodiversity.
BNH 28	Ensure that hedgerow removal to facilitate development is kept to an absolute minimum and, where unavoidable, a requirement for mitigation planting will be required comprising a hedge of similar length and species composition to the original, established as close as is practicable to the original and where possible linking in to existing adjacent hedges. Native plants of a local provenance should be used for any such planting.
BNH 30	Ensure that hedgerow and mature tree removal to facilitate development is kept to an absolute minimum and, where unavoidable, a requirement for mitigation planting will be required comprising a hedge of similar length and species composition to the original, established as close as is practicable to the original and where possible linking in to existing adjacent hedges. Native plants of a local provenance should be used for any such planting.

Figure 11.8 Location of proposed development relative to Significant Tree Groups as per Laois CDP



Source: Adapted from Laois CDP Map 11.5 Significant Tree Groups

11.4 Potential Impacts

The proposed works has the potential to result in the following impacts:

- Change of character due to the removal of trees and vegetation
- Change of character due to the change in use;
- Change of character due to the introduction of new built structure;
- Visual impacts due to the introduction of new buildings and built structures;
- Visual impacts due to the loss of vegetation;

11.5 Assessment of Impacts and Effects

From a landscape perspective, the vulnerability of the study area in relation to the proposed development is assessed in terms of whether the development will encroach significantly on the character, values and sensitivities of the local landscape or wider character area.

In terms of the visual impact, the assessment considers how the introduction of the development into the landscape will affect views throughout the study area.

11.5.1 Construction Phase – Landscape Effects

11.5.1.1 Substation and Wind farm collector cable

There will be permanent physical effects to the site's land cover, which are not readily reversible. These relate to the shallow excavation of the site, the removal of trees and vegetation across the footprint of the proposed development and the permanent loss of approximately 2.8ha of commercial conifer plantation. The new entrance point from the R423 on the southern boundary of the site will also require the removal of a section of hedgerow including a number of trees to facilitate it and associated necessary site exit sightlines.

While these landscape changes are considered negative there will however be no loss of significantly unique landscape features and the magnitude of construction stage landscape effects would be limited to the development site. Outside of the development footprint the dominant landscape characteristics of this area would remain largely unchanged and the prevailing land use activities will also be able to continue.

Overall the magnitude of construction stage landscape effects is deemed to be Medium within the immediate surrounds of the site which rapidly reduces to Low and then Negligible in the wider surrounds of the study area.

In combination with the Medium-low landscape sensitivity designation outlined above, the significance of construction stage impacts is deemed to be Moderate to Slight within the immediate surrounds of the site. This again quickly reduces to Slight and Imperceptible within the wider study area where landscape changes due to construction activities will not be discernible.

11.5.1.2 Underground Grid cable

The laying of an underground cable, entirely within in the road network corridor will cause temporary landscape impacts at the construction stage, which is expected to continue for 6-8 months.

Machinery and construction noise will temporarily affect the landscape character, particularly in the tranquil areas which are primarily along the local road networks within the study area. This will be similar to the disturbance

experienced during roadworks and road maintenance. Only a small section of underground grid cable works will be worked on each day (75m – 100m) which reduces the extent of any impacts. Overall, the magnitude of change during the construction phase will be *negligible to low*, and *temporary* in duration.

The general sensitivity of the landscape along the route of the underground is considered to be Medium to Low. While there are a few features of high sensitivity along the route including a group of trees at Garryhinch Church which are designated as contributing significant value to the environment, built heritage features such as Garryhinch Church, a post box at Garryhinch, Kilnahown Bridge and Blackhall/ Moores Bridge, and amenity features including Garryhinch forest recreational area, the river Barrow and Portarlinton Golf Course, there will be no direct or long term effects. The cable will be within the carriageway of the local road network and therefore trees and adjacent walls and built heritage elements will be avoided and unaffected. The cable will be laid by Directional Drilling to cross the Kilnahown and Blackhall/Moores bridge so there will be no effects on these bridges or watercourse during the construction phase.

Considering the magnitude of change in combination with the avoidance of direct effects on sensitive landscape designations, the significance of construction stage impacts is deemed to be Not significant to slight.

11.5.2 Construction Phase – Visual Effects

11.5.2.1 Substation and Wind farm collector cable

The magnitude of construction stage visual effects is deemed to be low within the immediate surrounds of the site, owing to the remote location and low number of resident visual receptors and the transient nature of visual receptors utilising the R423.

For the windfarm collector cable and access road which runs off-road, through grassland, degraded bogland or coniferous forestry, visual receptors will be few in number as there is limited or no public access in some of these areas.

For the substation, visibility from most of the surrounding landscape will be limited by the existing vegetation in the local landscape.

In combination with the Medium-low landscape sensitivity designation outlined above, the significance of construction stage impacts is deemed to be Moderate-slight within the immediate surrounds of the site. This would quickly reduce to Slight and Imperceptible within the wider study area where construction activities will not be discernible where visibility of construction activity is likely to be very limited.

11.5.2.2 Underground Grid cable

The construction phase will involve the laying of an underground cable in a trench in the road corridor, which is an activity similar to road works or maintenance, and though machinery and excavations may be visible there will be little or no overall visual change to the overall road corridor, and the visual change will be very localised and temporary. The magnitude of visual change is considered negligible to low.

Visual Receptor Sensitivity to the construction of the proposed underground cable, which is to be laid in the road corridor is considered Negligible to Low in the majority of locations.

The visual effect resulting from a negligible to low magnitude of change and a negligible to low visual receptor sensitivity results in a temporary to short Term, not significant visual effect.

Chapter 10 Cultural Heritage notes that there is no predicted impacts to the archaeological, architectural and cultural heritage resource as a result of the operation of the Proposed Development due to the type of development i.e. an underground cable.

Table 11.7 Summary of Construction Phase Effects

Project Element	Effects	Quality of Effect	Significance	Spatial Extent
Substation and wind farm collector cable	Change in landscape character due to removal of vegetation cover and excavations	Negative	Moderate-Slight	Localised
	Visual impacts on sensitive receptors due to the introduction of new buildings and built structures	Negative	Moderate – Slight	Localised
Underground Grid Cable	Change in landscape character due to increased activity	Negative	Slight -Not significant	Localised
	Visual impacts due to increased activity	Negative	Not Significant	Localised

11.5.3 Operational Phase – Landscape Effects

11.5.3.1 Substation and Wind farm collector cable

The operational phase will give rise to a noticeable change in the landscape character of the Proposed Development site. The initial impact of the built development on the landscape character would be perceived as negative due to the change in type from a rural landscape to a built structure. It is considered however that the landscape is sufficiently robust to accommodate this development with an increased intensification of use of the site. Outside the site, in the wider landscape, due to only a small part of the overall landscape loss, it is considered that only slight/neutral, negative and long-term character effects would occur as the prevailing land use activities would be able to continue.

The proposed development would not materially conflict or contravene any policy objectives set out for the landscape character area. There will be no loss of protected ecological habitat. The Site does not lie within any designated sensitive landscapes or in the direction of any ‘key scenic views’

Overall the magnitude of operational phase landscape effects is deemed to be Medium within the immediate surrounds of the site which rapidly reduces to Low and then Negligible in the wider surrounds of the study area.

In combination with the Medium-low landscape sensitivity designation, the significance of operational impacts is deemed to be Moderate to slight within the immediate surrounds of the site. This again quickly reduces to Slight and Imperceptible within the wider study area where landscape changes will not be readily discernible.

11.5.3.2 Underground Grid cable

Operational phase landscape effects where the proposed cable is laid within the road corridor are not likely to arise, as the cable is underground and installed. Any maintenance operations are unlikely to result in landscape effects and would be similar to temporary road works. Landscape effects are considered imperceptible and neutral.

11.5.4 Operational Phase – Visual Effects

11.5.4.1 Substation and Wind farm collector cable

The initial visual impact of the built development on the landscape would be perceived as negative due to the change from a field to a built structure. However views of the development will be substantially screened to potential visual receptors due hedgerow vegetation and trees in the landscape surrounding the subject lands.

From the north, there are no sensitive visual receptors. From the east and west vegetation will completely block any views of the subject lands.

From the south the transient nature of visual receptors utilising the R423 would not be likely to experience significant visual effects as there would be no loss of currently significant landscape features from the environment and there are no designated views and prospects associated with these proposed development lands.

Overall the magnitude of operational phase visual effects is deemed to be Medium within the immediate surrounds of the site which rapidly reduces to Low and then Negligible in the wider surrounds of the study area.

In combination with the Medium-low sensitivity of visual receptors, the significance of operational impacts is deemed to be Moderate to slight within the immediate surrounds of the site. This again quickly reduces to Slight and Imperceptible within the wider study area where visibility of the development will not be readily discernible.

11.5.4.2 Underground Grid cable

Operational phase visual effects are not likely to arise, as the cable is underground and installed. Any maintenance operations are unlikely to result in visual effects and would be similar to temporary road works. No visual effects are considered to arise

Table 11.8 Summary of Operational Phase Effects

Project Element	Effects	Quality of Effect	Significance	Spatial Extent
Substation and wind farm collector cable	Change of character due to the change in use	Negative	Moderate - Slight	Localised
	Visual impacts due to introduction of new buildings and built structures	Negative	Moderate - Slight	Localised
Underground Grid Cable	Landscape effects	n/a	Imperceptible	n/a
	Visual effects	n/a	Imperceptible	n/a

11.5.5 Do-Nothing

It is likely the existing road and track network will be maintained and continue to function as a road in the future. It is expected that the main land uses in the study area – agriculture and residential – will continue. It is assumed that the lands to the north of the study area including lands along the wind farm collector cable which are under coniferous forestry, will continue, with the cycle of felling and re-planting continuing.

11.5.6 Cumulative Impacts and Effects

There is potential for the permitted Dernacart Wind Farm and the proposed 110kV substation and wind farm collector cable to be constructed at the same time which may cause a slight cumulative landscape and visual effect as a result of changes due to removal of vegetation cover and increased activity in the area. At construction stage however, the construction related to the windfarm is of a scale where the additional construction of the Proposed Development is unlikely to be distinguishable.

Operational phase landscape and visual effects of the Proposed Development in conjunction with the windfarm are not considered to be significant. The combination of these development while would lead to an increase in more industrial elements within the local area, the overall landscape character and existing visual amenity would be retained owing to the fact that the proposed substation and windfarm collector cable will largely be visually contained and will not result in a change to the overall rural nature of the area. Therefore the cumulative effect is considered to be moderate to slight.

Potential construction and operational phase cumulative landscape and visual effects of the Proposed Development in conjunction with the consented Bracklone 110kV substation will not arise.

Given the separation distance between the consented Bracklone 110kV substation and the proposed substation and wind farm collector cable there is no possibility of cumulative landscape or visual impact with these developments

The consented Bracklone 110kV substation, which the proposed underground grid cable is to connect into, is currently under construction. Therefore, there is no possibility of cumulative landscape or visual impacts associated with the construction phase of these developments. Likewise, there is no possibility of cumulative landscape or visual impacts to occur during the operational phase of these developments as the proposed grid connection is to be underground.

With exception of the permitted Dernacart Wind Farm and the Bracklone substation, along with existing activities in the area, there are no other known plans or projects in close proximity to cumulatively impact landscape character and visual amenity in the receiving environment.

Notwithstanding, having regard to the proposed underground 110kV grid cable, any potential project that would be located within the public road network will have to apply to the local authority for a road opening licence, where timelines will be agreed, and connections sequenced. Early engagement with the local authority will allow

the local authority to decide on how the sections of public road are managed during the laying of the underground grid trenching, so as to avoid disruption and any potential impacts on landscape and visual amenity.

11.6 Mitigation Measures

11.6.1 Mitigation by Avoidance

The proposed development will not be a prominent feature within the surrounding landscape context.

The principal mitigation measures have been embedded in the design process to reduce as far as possible landscape and visual effects.

The proposed substation and wind farm collector cable and associated access road has been set back from the public road network and would be sited in a visually contained section of the site, enclosed by existing boundary hedgerows to maximise visual screening.

Retention of existing hedgerow boundaries around the substation site, with the exception of the loss of a short section of boundary hedgerow along the southern boundary to accommodate the proposed site entrance, will aid visual screening, and maintains the existing field pattern for the wider landscape. In this respect, the proposed development is not perceived to impose itself on the existing landscape character.

11.6.2 Construction Phase

No additional mitigation required.

11.6.3 Operational Phase

- Lighting at the substation should be motion activated lighting to avoid excessive light spillage beyond the boundary fencing.
- The removal of hedgerow vegetation across the development footprint should be offset by the proposed planting of new hedgerow along the southern and western perimeters of the proposed substation site development to aid in the enhancement of existing perimeter screening of the site.

11.7 Residual Impacts and Effects

Table 11.9 below summarises the residual impacts and effects post implementation of mitigation.

Table 11.9 Residual Impacts and Effects

Phase	Project Element	Potential Effect	Pre-mitigation	Mitigation	Residual Effect (Post Mitigation)		
					Quality of Effect	Significance	Spatial Extent
Construction Phase	Substation and wind farm collector cable	Change in landscape character due to removal of vegetation cover and excavations	Moderate-Slight	n/a	Negative	Moderate-Slight	Localised
		Visual impacts on sensitive receptors due to the introduction of new buildings and built structures	Moderate - Slight	n/a	Negative	Moderate - Slight	Localised
	Underground grid cable	Change in landscape character due to increased activity	Slight – Not Significant	n/a	Negative	Slight – Not Significant	Localised
		Visual impacts due to increased activity	Not Significant	n/a	Negative	Not Significant	Localised
Operation Phase	Substation and wind farm collector cable	Change of character due to the change in use	Moderate - Slight	n/a	Negative	Moderate-Slight	Localised
		Visual impacts due to introduction of new buildings and built structures	Moderate - Slight	Section 11.6.3	Negative	Slight	Localised
	Underground grid cable	Landscape effects	Imperceptible	n/a	n/a	Imperceptible	n/a
		Visual effects	Imperceptible	n/a	n/a	Imperceptible	n/a

11.8 Conclusion

Some changes in the character of the host landscape will occur locally due to the presence of the Proposed Development as a new landscape element.

The underground 110kV grid cable will not result in adverse landscape and visual effects.

The proposed substation element of the proposed development will result in an increase of light industrial landscape character within the area. The change in landscape character is greatest in its immediate and nearby surroundings of the proposed development boundary.

However, the proposed substation and wind farm collector cable is contained within field boundaries with existing hedgerows and mature tree lines confining this change in landscape character to the proposed development's immediate surrounds without significantly extending landscape effects into the wider area. Landscape effects will therefore reduce quickly with increasing distance from the proposed development boundary.

It is considered that the magnitude of any change would not constitute an unacceptable or detrimental effect on the local landscape character and visual receptors for the reasons outlined as follows:

- The proposed development would not materially conflict or contravene any policy objectives set out for the landscape character area.
- There will be no loss of protected ecological habitat.
- The proposed development site would not impart a major change to the overall visual character of this area. The visual environment of the site and its surrounding context is generally enclosed, and due to the relatively low lying setting available views to the site are generally limited to its immediate context.
- The Site does not lie within any designated sensitive landscapes or in the direction of any 'key scenic views'

Overall, the landscape and visual effects arising from the introduction of the proposed development would be localised, and limited in both scale and extent, and would not result in any substantial adverse change to the landscape character of the general area. The proposed development will result in a limited visual impact on the overall landscape character and visual amenity. The proposed development will not impact on views from protected features or sensitive receptors and is considered an appropriate scale for the existing landscape.