



macroworks

LANDSCAPE & VISUAL IMPACT ASSESSMENT

Aglish SID Substation

Co. Cork.

Prepared by Macro Works Ltd on behalf of Aglish Solar Farm Ltd

January 2026



1.	LANDSCAPE AND VISUAL IMPACT ASSESSMENT	3
1.1	Introduction	3
1.2	Methodology	4
1.3	Landscape and Visual Policy Context and Designations	12
1.4	Existing Environment	16
1.5	Mitigation and Restoration Measures	22
1.6	Impact Assessment	24
1.7	Cumulative effects	36
1.8	Conclusions	37
1.9	References	38

This LVIA should be read in conjunction with the LVIA Photomontages produced by Macro Works Ltd



1. LANDSCAPE AND VISUAL IMPACT ASSESSMENT

1.1 INTRODUCTION

This Landscape and Visual Assessment (LVIA) has been prepared to accompany a planning application for a 110kV Air Insulated Switchgear (AIS) electricity substation and grid connection in the townlands of Aglish and Currahaly in County Cork.

For clarity, it should be noted that the terms 'proposed development' and 'proposed substation and grid connection' are interchangeable in this report and, where contextually relevant, references are also made to the proposed Aglish Solar Farm. It should be noted that electricity generated on this solar farm will be transmitted on to the national electricity grid via the proposed substation and grid connection.

In addition, it is also important to note that the wider solar farm development has been subject to a comprehensive review by Cork County Council (CCC) as part of the wider solar farm application (planning ref: 246157). Whilst a request for further information was made by CCC, the senior planner noted on receipt of the further information details provided by the applicant "that the development will have a localised impact but will not unduly impact on the character of the wider area".

This LVIA describes the landscape context of the proposed substation and grid connection development and, given its proximity, the proposed Aglish Solar Farm and assesses the likely landscape and visual impacts of the scheme on the receiving environment. Although closely linked, landscape and visual impacts are assessed separately.

- Landscape Impact Assessment (LIA) relates to assessing effects of a development on the landscape as a resource in its own right and is concerned with how the development will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character.
- Visual Impact Assessment (VIA) relates to assessing effects of a development on specific views and on the general visual amenity experienced by people. This deals with how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements. Visual impacts may occur from; Visual Obstruction (blocking of a view, be it full, partial or intermittent) or; Visual Intrusion (interruption of a view without blocking).

1.1.1 Approach and Statement of Authority

This LVIA adopts an approach that is founded in the following best practice guidance documents:

- Landscape Institute and the Institute of Environmental Management and Assessment (IEMA) publication entitled Guidelines for Landscape and Visual Impact Assessment, 2013 (GLVIA3);
- Environmental Protection Agency (EPA) publication 'Guidelines on the Information to be contained in Environmental Impact Statements (2022); and
- 'Photography and Photomontage in Landscape and Visual Impact Assessment', Landscape Institute Technical Guidance Note 06/2019.

This LVIA was prepared by Macro Works Ltd of Cherrywood Business Park, Loughlinstown, Dublin 18; a consultancy firm specialising in Landscape and Visual Assessment and associated maps and graphics. Macro Works' relevant experience includes a broad range of infrastructural, renewable energy including 150+ Solar Farm developments along with industrial and commercial projects, numerous urban, residential, and mixed use development since 1999.

1.1.2 Description of the Proposed Development

The proposed development comprises of:

- A 110kV Air Insulated Switchgear (AIS) electricity substation with single-storey substation building, single-storey Independent Power Producer (IPP) control room building, High Voltage (HV) electrical equipment and associated infrastructure (to include transformer, lightning protection masts, back-up diesel generator, fire/blast wall, telecoms pole, perimeter security fencing, security lighting, water and drainage infrastructure, and temporary construction compound) to connect to and serve a solar farm;
- Associated loop-in / loop out infrastructure to connect into an existing 110kV overhead transmission line (including underground 110kV cabling [lengths of ca.790 and 880m from proposed substation to interface towers, including HDD crossing of L2204 road], 2 No. new interface towers and decommissioning of ca. 75m of existing 110kV overhead line);
- Construction and operational access from the public road L2204;
- All ancillary site development, landscaping and earthworks. The development subject to this application forms part of grid connection and access arrangements which will facilitate the connection of the proposed AGLISH Solar Farm (Cork County Council Reference 24/6157 / An Coimisiún Pleanála ACP-323402-25) to the national grid.

1.2 METHODOLOGY

This document uses methodology as prescribed in the previously mentioned GLVIA3, which follows the European Landscape Convention (ELC) definition of landscape:

‘Landscape is an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors’ (Council of Europe, 2000). Thus, GLVIA-2013 covers all landscapes from “high mountains and wild countryside to urban and fringe farmland (rural landscapes), marine and coastal landscapes (seascapes) and the landscapes of villages towns and cities (townscapes)” - whether protected or degraded.

1.2.1 Scope of the Assessment

GLVIA3 establishes guidelines and not a specific methodology. The preface recognises that:

‘This edition concentrates on principles and processes. It does not provide a detailed or formulaic ‘recipe’ that can be followed in every situation – it remains the responsibility of the professional to ensure that the approach and methodology adopted are appropriate to the task in hand.’

The methodology for this assessment has therefore been developed specifically for this assessment to ensure that it is appropriate and fit for purpose. The LVIA Methodology can be summarised as undertaking the following key tasks:

- Desk study and site visits in May 2024;
- Defining the Baseline Landscape setting and conditions;
- Identification and Evaluation of key components of the proposed development;
- Consideration of Mitigation Measures;
- Assessment of Landscape Effects;
- Assessment of Visual Effects; and
- Summary Statement of Significance.

1.2.2 Study Area

From similar studies, it is anticipated that the proposed development is likely to be difficult to discern beyond approximately 5km and is not likely to give rise to significant landscape or visual impacts beyond approximately 2km. In the interests of a comprehensive appraisal, a 5km radius study area is used in this instance. However, there will be a particular focus on receptors contained within 2km, except where iconic or designated scenic viewpoints exist at greater distances out to 5km (refer to Figure 1.1). A study area of 5km has typically been used for solar projects in Ireland, Northern Ireland and Great Britain and this approach has been deemed acceptable by multiple planning authorities including Cork County Council.

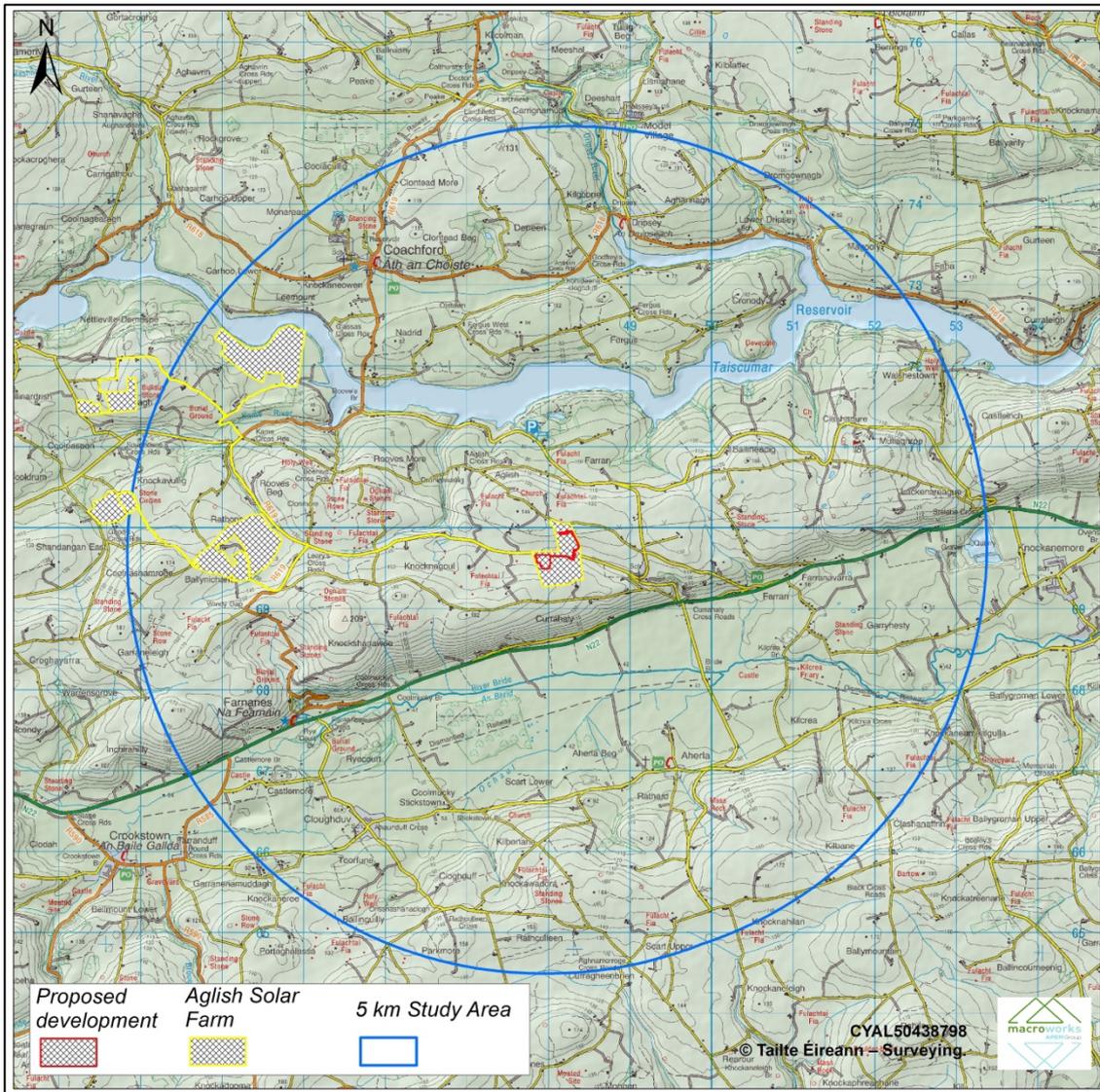


Figure 1.1 5km Extent of the Study Area

1.2.3 Landscape Impact Assessment Criteria

This part of the LVIA provides an assessment of how the introduction of the proposed development will affect the physical features and fabric of the landscape, and then how the proposals influence landscape character with reference to published descriptions of character and an understanding of the contemporary character of the landscape as informed through desktop and site studies.

When assessing the potential landscape effects of the development, the value and sensitivity of the landscape receptor is weighed against the magnitude of impact to determine the significance of the landscape effect. Criteria outlined below are used to guide these judgements.

1.2.3.1 Landscape Sensitivity

The sensitivity of the landscape to change is the degree to which a particular setting can accommodate changes or new elements without unacceptable detrimental effects to its essential characteristics. In accordance with GLVIA3, the sensitivity of a landscape receptor (Landscape Character Area or feature) is derived from combining judgements in relation to its susceptibility to change and its value. The judgement reflects such factors as its quality, value, contribution to landscape character and the degree to which the particular element or characteristic can be replaced or substituted. Landscape Sensitivity is classified using the following criteria set out in Table 1.1.

Table 1.1 Landscape Value and Sensitivity

Sensitivity	Description
Very High	Areas where the landscape character exhibits a very low capacity for change in the form of development. Examples of which are high value landscapes, protected at an international or national level (World Heritage Site/National Park), where the principal management objectives are likely to be protection of the existing character.
High	Areas where the landscape character exhibits a low capacity for change in the form of development. Examples of which are high value landscapes, protected at a national or regional level (Area of Outstanding Natural Beauty), where the principal management objectives are likely to be considered conservation of the existing character.
Medium	Areas where the landscape character exhibits some capacity and scope for development. Examples of which are landscapes, which have a designation of protection at a county level or at non-designated local level where there is evidence of local value and use.
Low	Areas where the landscape character exhibits a higher capacity for change from development. Typically, this would include lower value, non-designated landscapes that may also have some elements or features of recognisable quality, where landscape management objectives include, enhancement, repair and restoration.
Negligible	Areas of landscape character that include derelict, mining, industrial land or are part of the urban fringe where there would be a reasonable capacity to embrace change or the capacity to include the development proposals. Management objectives in such areas could be focused on change, creation of landscape improvements and/or restoration to realise a higher landscape value.

1.2.4 Magnitude of Change – Landscape

The magnitude of change is a product of the scale, extent or degree of change that is likely to be experienced as a result of the proposed development and to a lesser extent the duration and reversibility of that effect. The magnitude takes into account whether there is a direct physical impact resulting from the loss of landscape components and/or a change that extends beyond the immediate setting that may have an effect on the landscape character. Table 1.2 outlines criteria used to inform this judgement.

Table 1.2 Magnitude of Change – Landscape

Criteria	Description
----------	-------------

Very High	Change that would be large in extent and scale with the loss of critically important landscape elements and features, that may also involve the introduction of new uncharacteristic elements or features that contribute to an extensive change of the landscape in terms of character, value and quality.
High	Change that would be more limited in extent and scale with the loss of important landscape elements and features, that may also involve the introduction of new uncharacteristic elements or features that contribute to a considerable change of the landscape in terms of character, value and quality.
Medium	Changes that are modest in extent and scale involving the loss of landscape characteristics or elements that may also involve the introduction of new uncharacteristic elements or features that would lead to noticeable changes in landscape character, and quality.
Low	Changes affecting small areas of landscape character and quality, together with the loss of some less characteristic landscape elements or the addition of new features or elements that would lead to discernible changes in landscape character, and quality.
Negligible	Changes affecting small or very restricted areas of landscape character. This may include the limited loss of some elements or the addition of some new features or elements that are characteristic of the existing landscape or are hardly perceivable leading to no material change to landscape character, and quality.

1.2.5 Visual Impact Assessment Criteria

This part of the LVIA provides an assessment of how the introduction of the proposed development will affect views within the landscape. It therefore needs to consider:

- Direct impacts of the proposed development upon views through intrusion or obstruction;
- The reaction of viewers who may be affected, e.g. residents, walkers, road users; and
- The overall impact on visual amenity.

It has been deemed appropriate to structure the assessment around a series of representative viewpoint locations. All viewpoints are located within the public domain and are representative of views available from main thoroughfares and pedestrian areas within the vicinity of the proposed development. The selected viewpoints are considered to be comprehensive in communicating the variable nature of the visual effects.

When assessing the potential visual effects of the development, the sensitivity of the visual receptor is weighed against the magnitude of the visual impact to determine the significance of the visual effect. Criteria outlined below are used to guide these judgements.

1.2.5.1 *Sensitivity of Visual Receptors*

As with landscape sensitivity, the sensitivity of a visual receptor is categorised as Very High, High, Medium, Low, and Negligible. Unlike landscape sensitivity however, the sensitivity of visual receptors has an anthropocentric (human) basis. It considers factors such as the perceived quality and values associated with the view, the landscape context of the viewer, the likely activity the viewer is engaged in and whether this heightens their awareness of the surrounding environment.

A list of the factors considered by the assessor in estimating the level of sensitivity for a particular visual receptor is outlined below to establish visual receptor sensitivity at each viewpoint location.

1.2.5.2 *Susceptibility of Visual Receptors to Change*

In accordance with GLVIA3, visual receptors most susceptible to changes in views and visual amenity are:

- “Residents at home;
- People, whether residents or visitors, who are engaged in outdoor recreation, including use of public rights of way, whose attention or interest is likely to be focussed on the landscape and on particular views;
- Visitors to heritage assets, or to other attractions, where views of the surroundings are an important contributor to the experience;
- Communities where views contribute to the landscape setting enjoyed by residents in the area;
- Travellers on road rail or other transport routes where such travel involves recognised scenic routes and awareness of views is likely to be heightened”.
- Visual receptors that are less susceptible to changes in views and visual amenity include;
- “People engaged in outdoor sport or recreation, which does not involve or depend upon appreciation of views of the landscape;
- People at their place of work whose attention may be focussed on their work or activity, not their surroundings and where the setting is not important to the quality of working life”.

1.2.5.3 *Values attached to Views*

The value attached to a view is determined by considering the following:

- Recognised scenic value of the view (Development Plan designations, guidebooks, touring maps, postcards etc). These represent a consensus in terms of which scenic views and routes within an area are strongly valued by the population because in the case of County Developments Plans, for example, a public consultation process is required;
- Views from within highly sensitive landscape areas. These are likely to be in the form of Architectural Conservation Areas, which are incorporated within the Development Plan and therefore subject to the public consultation process. Viewers within such areas are likely to be highly attuned to the landscape around them;
- Primary views from residential receptors. Even within a dynamic city context, views from residential properties are an important consideration in respect of residential amenity;
- Intensity of use, popularity. This relates to the number of viewers likely to experience a view on a regular basis and whether this is significant at a national or regional scale;
- Provision of vast, elevated panoramic views. This relates to the extent of the view on offer and the tendency for receptors to become more attuned to the surrounding landscape at locations that afford broad vistas;
- Sense of remoteness and/or tranquillity. Receptors taking in a remote and tranquil scene, which is likely to be fairly static, are likely to be more receptive to changes in the view than those taking in the view of a busy street scene, for example;
- Degree of perceived naturalness. Where a view is valued for the sense of naturalness of the surrounding landscape it is likely to be highly sensitive to visual intrusion by distinctly manmade features;
- Presence of striking or noteworthy features. A view might be strongly valued because it contains a distinctive and memorable landscape / townscape feature such as a cathedral or castle;
- Historical, cultural and / or spiritual significance. Such attributes may be evident or sensed by receptors at certain viewing locations, which may attract visitors for the purposes of contemplation or reflection heightening the sense of their surroundings;

- Rarity or uniqueness of the view. This might include the noteworthy representativeness of a certain landscape type and considers whether the receptor could take in similar views anywhere in the broader region or the country;
- Integrity of the landscape character. This looks at the condition and intactness of the landscape in view and whether the landscape pattern is a regular one of few strongly related components or an irregular one containing a variety of disparate components;
- Sense of place. This considers whether there is special sense of wholeness and harmony at the viewing location;
- Sense of awe. This considers whether the view inspires an overwhelming sense of scale or the power of nature.

Those locations which are deemed to satisfy many of the above criteria are likely to be of higher sensitivity, and no relative importance is inferred by the order of listing.

It is recognised that a viewer’s interpretation and experience of the landscape can have preferential and subjective components. Where relevant, judgements are made on those elements of the landscape that are considered to contribute more prominently and positively to the visual landscape resource as well as those elements that contribute negatively. Overall sensitivity may be a result of a number of these factors or, alternatively, a strong association with one or two in particular.

1.2.6 Magnitude of Change – Visual

The magnitude of change is again a product of the scale, extent, or degree of change that is likely to be experienced as a result of the proposed development. This is directly influenced by its ‘visual presence / prominence’, as experienced by visual receptors in the landscape. These terms are somewhat quantitative in nature, and essentially relate to how noticeable or ‘dominant’ the proposal is within a particular view. Aside from the obvious influence of scale and distance, a development’s visual presence is influenced by the extent and complexity of the view, contextual movement in the landscape, the nature of its backdrop, and its relationship with other focal points or prominent features within the view. It is often, though not always, expressed using one of the following terms: Minimal; Sub-dominant; Co-dominant; Dominant; Highly dominant. Criteria used to inform judgements are provided in Table 1.3.

Table 1.3 Magnitude of Change – Visual

Criteria	Description
Very High	Complete or very substantial change in view, dominant, involving complete or very substantial obstruction of existing view or complete change in character and composition of baseline, e.g., through removal of key elements.
High	A major change in the view that is highly prominent and has a strong influence on the overall view. This may involve the substantial obstruction of existing views or a complete change in character and composition of baseline, e.g. through removal of key elements or the introduction of new features that would heavily influence key elements.
Medium	Moderate change in view: which may involve partial obstruction of existing view or partial change in character and composition of baseline, i.e., pre-development view through the introduction of new elements or removal of existing elements. Change may be prominent but would not substantially alter scale and character of the surroundings and the wider setting. View character may be partially changed through the introduction of features which, though uncharacteristic, may not necessarily be visually discordant.

Low	Minor change in baseline, i.e. pre-development view - change would be distinguishable from the surroundings whilst composition and character would be similar to the pre change circumstances.
Negligible	Very slight change in baseline, i.e. pre-development view - change would be barely discernible. Composition and character of view substantially unaltered.

1.2.7 **Significance of Effect**

The significance of a landscape or visual effect is based on a balance between the sensitivity of the receptor and the magnitude of change, and is categorised as Profound, Substantial, Moderate, Slight, or Imperceptible. Intermediate judgements are also provided to enable an effect to be more accurately described where relevant. ‘No Effect’ may also be recorded as appropriate where the effect is so negligible it is not noteworthy.

The significance category judgement is arrived at using the Significance Matrix at Table 1.4 as a guide. This applies the principle of significance being a function of magnitude weighed against sensitivity, but employs slightly different terminology that avoids the potentially confusing use of the term ‘significant’ (as recommended by GLVIA3 Statement of Clarification 1/13 (Landscape institute, 10th June 2013)).

Indicative criteria descriptions used in relation to the significance of effect category are presented at Table 1.5.

Table 1.4 Significance Matrix

	Sensitivity of Receptor				
Magnitude	Very High	High	Medium	Low	Negligible
Very High	Profound	Profound-substantial	Substantial	Moderate	Slight
High	Profound-substantial	Substantial	Substantial-moderate	Moderate-slight	Slight-imperceptible
Medium	Substantial	Substantial-moderate	Moderate	Slight	Imperceptible
Low	Moderate	Moderate-slight	Slight	Slight-imperceptible	Imperceptible
Negligible	Slight	Slight-imperceptible	Imperceptible	Imperceptible	Imperceptible

Table 1.5 Indicative significance of effect criteria descriptions

	Landscape	Visual
Profound	There are notable changes in landscape characteristics over an extensive area or a very intensive change over a more limited area.	The view is entirely altered, obscured or affected.
Substantial	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the landscape.	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the visual environment.

	There are notable changes in landscape characteristics over a substantial area or an intensive change over a more limited area.	The proposal affects a large proportion of the overall visual composition, or views are so affected that they form a new element in the physical landscape.
Moderate	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends. There are minor changes over some of the area or moderate changes in a localised area.	An effect that alters the character of the visual environment in a manner that is consistent with existing and emerging trends. The proposal affects an appreciable segment of the overall visual composition, or there is an intrusion in the foreground of a view.
Slight	An effect which causes noticeable changes in the character of the landscape without affecting its sensitivities. There are minor changes over a small proportion of the area or moderate changes in a localised area or changes that are reparable over time.	An effect which causes noticeable changes in the character of the visual environment without affecting its sensitivities. The affected view forms only a small element in the overall visual composition or changes the view in a marginal manner.
Imperceptible	An effect capable of measurement but without noticeable consequences. There are no noticeable changes to landscape context, character or features.	An effect capable of measurement but without noticeable consequences. Although the development may be visible, it would be difficult to discern resulting in minimal change to views.

It is important that the likely effects of the proposals are transparently assessed and understood in order that the determining authority can bring a balanced, well-informed judgement to bear when making a planning decision.

As such, whilst the significance matrix and criteria provide a useful guide, the significance of an effect is ultimately determined by the landscape specialist using professional judgement, and also in the context of occasionally using hybrid judgements to account for nuance.

Effects assessed as ‘Substantial’ or greater (shaded cells) are considered to be the most notable in landscape and visual terms, and may be regarded as ‘Significant’, albeit it is important to note that this is not a reflection on their acceptability in planning terms.

1.2.8 Quality of Effects

In addition to assessing the significance of landscape and visual effects, the quality of the effects is also determined. Within this LVIA, effects are described as negative/adverse, neutral, or positive/beneficial, and the following criteria has been used to guide these judgements.

- Positive/beneficial - A change which improves the quality of the environment, enhancing the existing view/landscape;
- Neutral - No effects or effects that are imperceptible, within normal bounds of variation e.g. will neither detract from nor enhance the existing view/landscape;
- Negative/adverse - A change which reduces the quality of the environment, detracting from the existing view/landscape.

In the case of new energy / infrastructure developments within rural and semi-rural settings, the landscape and visual change brought about by an increased scale and intensity of built form is seldom considered to be positive / beneficial. Effects in these contexts are generally considered to be adverse in nature, or neutral, where the effect has little influence on the landscape/views.

1.3 LANDSCAPE AND VISUAL POLICY CONTEXT AND DESIGNATIONS

1.3.1 Cork County Development Plan 2022-2028

The Cork County Development Plan 2022-2028 includes Chapter 14 'Green Infrastructure and Recreation', within which sub-section 14.7 relates to landscape. A number of general objectives relating to landscape are noted within this chapter and are included below;

GI 14-9: Landscape

1. *"Protect the visual and scenic amenities of County Cork's built and natural environment.*
2. *Landscape issues will be an important factor in all land-use proposals, ensuring that a pro-active view of development is undertaken while maintaining respect for the environment and heritage generally in line with the principle of sustainability.*
3. *Ensure that new developments meets high standards of siting and design.*
4. *Protect skylines and ridgelines from development.*
5. *Discourage proposals necessitating the removal of extensive amounts of trees, hedgerows and historic walls or other distinctive boundary treatments."*

GI 14-10: Draft Landscape Strategy

"Ensure that the management of development throughout the County will have regard for the value of the landscape, its character, distinctiveness and sensitivity as recognised in the Cork County Draft Landscape Strategy and its recommendations, in order to minimize the visual and environmental impact of development, particularly in areas designated as High Value Landscapes where higher development standards (layout, design, landscaping, materials used) will be required."

A Landscape Character Assessment was undertaken as part of the Draft Cork Landscape Strategy (2007). This has been incorporated within the Cork County Development Plan (2022-2028) and divides the county into 16 No. Landscape Character Types (LCTs). The proposed development is located within landscape character type; 'LCT6a - Broad Fertile Lowland Valleys' (Figure 1.3 refers). LCT6a is classified with a 'High' Landscape Value, 'High' landscape sensitivity, and 'County' level landscape importance.

In respect of the wider solar farm development, the substation and grid connection is located within Parcels 5-6. The remaining parts of the solar farm development (parcels 1-4) are located within LCT8 - Hilly River and Reservoir Valley which is classified with a 'High' landscape value, 'High' landscape sensitivity, and 'National' level landscape importance.

LCT 6a "stretches west and east from the environs of Cork City but also includes a smaller area east of Rathcormac. The valleys in these areas are created by the rivers flowing east to west and are surrounded by low well spaced ridges. These shallow and flat valleys wind as they follow the course of the river, rising to the north and south with gentle slopes where the valley is wide but with steeper faced slopes where the valley narrows. Further upstream to the west the broad flatness narrows and winds between low hills. Landcover comprises highly fertile, regularly shaped fields typically of medium size and with mature broadleaf hedgerows. Agricultural use primarily involves intensive dairying as well as tillage, with farmsteads relatively well screened by the hedgerows."

LCT 8 "comprises a relatively confined swath of land stretching between unique alluvial oak woodland known as "The Gearagh" in the west and the village of Inishcarra in the east. Topographically the landscape includes interweaving hills and valleys which conduct the River Lee. The valleys are contained by low flanking ridges set back from the water while intermediate land comprises low hills which undulate or occasionally interlock and create a meandering course for the water. Geologically it comprises a river valley, or almost an elongated basin, of old red sandstone overlaid with brown podzols. The river as the dominant element in the landscape, expands and contracts along its course between hydroelectric dams. Landcover pattern comprises regular shaped fields of medium size, bounded by broadleaf hedgerows which are mostly low and thin. Complexity of landcover is provided not only by shelterbelts and small woodland copses, but also by patches of scrub, marginal land, bracken and gorse."

Other landscape types within the wider study area include 'LCT 10b - Fissured Fertile Middleground'.



Figure 1.2 Excerpt from Cork County Development Plan (2022-2028). Appendix F, Map 2 showing approximate locations of the proposed development in relation to Landscape Character Types.

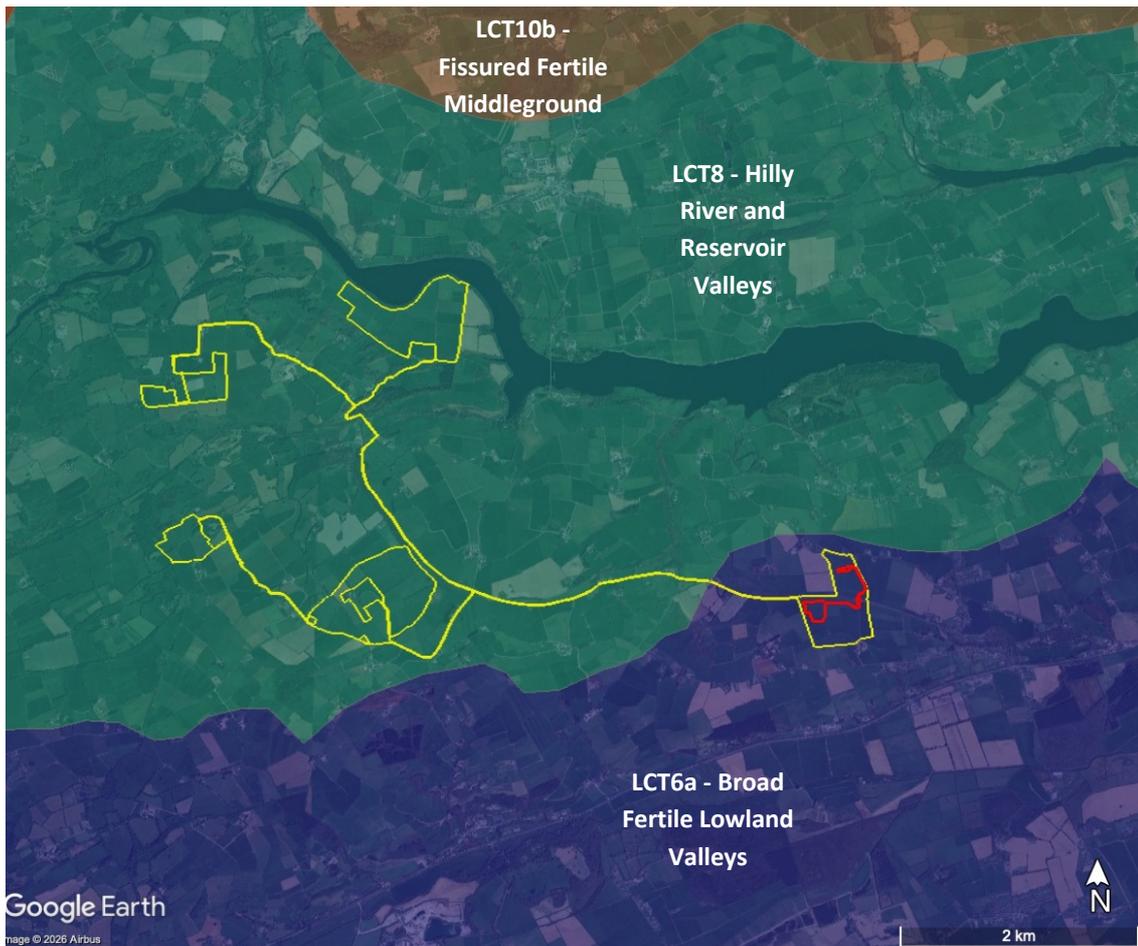


Figure 1.3 Excerpt from the Cork County Development Plan (2022-2028) map browser, showing landscape character types in relation to the proposed development.

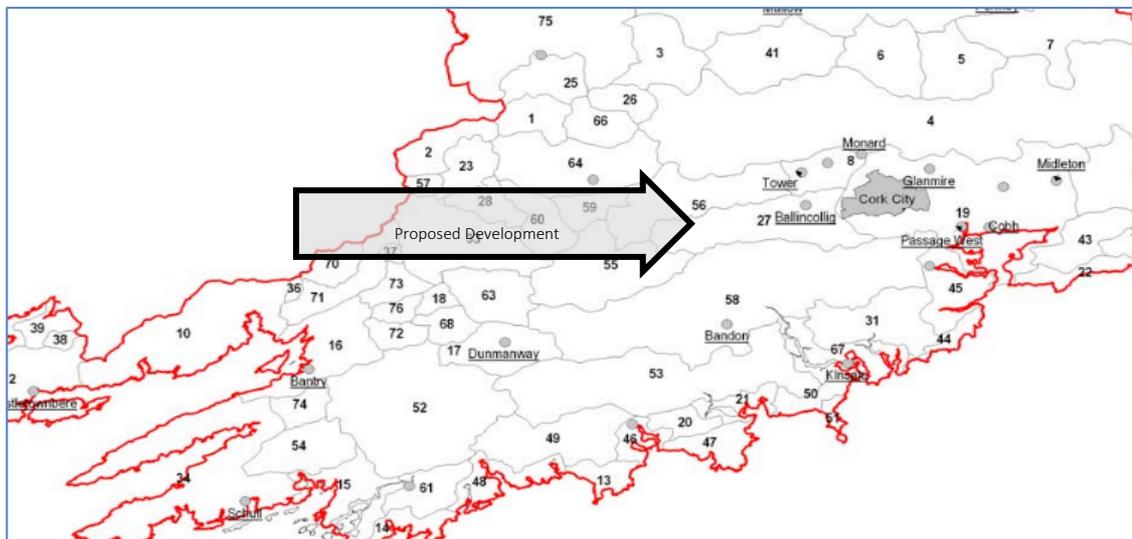


Figure 1.4 Excerpt from County Cork Draft Landscape Strategy 2007. Map 1 showing approximate location of the proposed site in relation to Landscape Character Areas

The value of the landscape in county Cork “is defined as the environmental or cultural benefits, including services and functions, which are derived from various landscape attributes. Value is evaluated using criteria ranging from Very High to Low”. Whilst much of the wider solar farm development, aside from the southernmost parcels (parcels 5 and 6), are contained within a High Value Landscape (HVL) designation, the proposed substation development is located just south of this classification. Within the study area, the HVL designation is directly relate to LCT8 - Hilly River and Reservoir Valleys and the surrounds of the River Lee corridor (refer to Figure 1.5) .

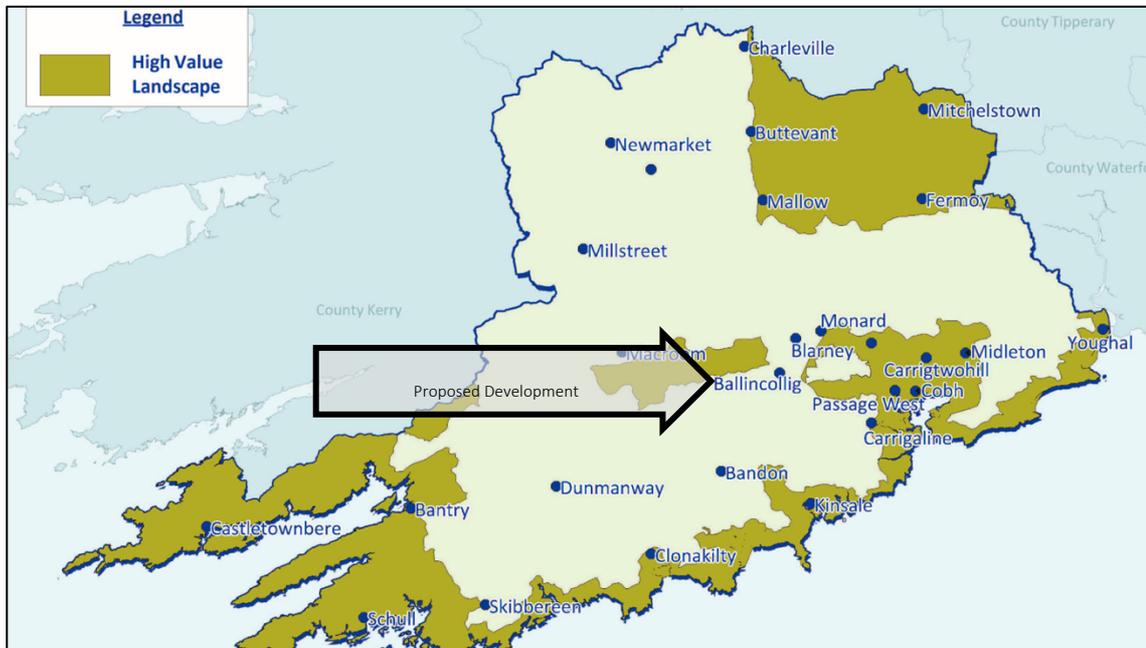


Figure 1.5 Excerpt from CCDP (2022-2028). Chapter 14, Figure 14.2 showing approximate location of the proposed development in relation to high value landscapes

A number of general recommendations are outlined in the Draft Cork County Landscape Strategy regarding LCT6a and 8. Those deemed relevant to the proposed development are included below:

LCT6a

- Protect and preserve the Lee Valley and the Bandon River and their surrounding floodplains as unique landscape features in this Landscape Character Type and as valuable resource for scenic and amenity values.
- Control development that will adversely affect distinctive linear sections of the Lee River Valley, especially its open flood plains, when viewed from relevant scenic routes and settlements.
- Conserve and enhance the characteristics in this Landscape Character Type that are important to tourism.
- Have regard to the rich and diverse natural heritage in this Landscape Character Type and the concentration of NHA’s that are designated for protection. While protecting these areas it is also important to recognise their potential as key recreation and amenity sources.
- Protect the existing character and setting of villages and village nuclei which are under pressure from population growth particularly those villages which are located close to Cork City.
- Recognise that the lowlands are made up of a variety of working landscapes that are critical resources for sustaining the economic and social well being of the county.
- Recognise that agriculture is a major landuse in this LCT. This will help maintain the existing features of this landscape while also supporting the local economy and rural diversification.

LCT8

- Preserve the scenic and amenity values of the Lee Valley, which has a unique landscape setting, while also aiming to improve public access to the River Lee for amenity and recreational use.
- Control development that will adversely affect distinctive linear sections of the Lee River Valley, especially its open flood plains, when viewed from relevant scenic routes and settlements.
- The majority of this landscape is farmed therefore the promotion of agriculture as the major land use in this LCT will help maintain the existing features of the landscape while also supporting the local economy and rural diversification.
- Protect the prominent hillsides, which are predominant components of this landscape type, particularly on the northern side of the R618 that runs through the village of Coachford.
- Protect the unique rural character and setting of villages like Coachford and Dripsey by preventing large-scale development which would undermine the attractiveness of these villages.

Minimise the disturbance of hedgerows in this area. Encourage appropriate landscaping and screen planting of proposed developments by using predominantly indigenous/local species and groupings

Greenbelt Policy

Chapter 5 and 14 of the Cork County Development Plan (2022-2028) identifies and discuss 'Greenbelts' and 'Prominent and Strategic Metropolitan Cork Greenbelt Areas'. It is important to note that the proposed development is not located within or adjacent to any of these Greenbelt designations. The nearest Greenbelt designations are located some c. 4km east of the proposed substation and grid connection.

1.3.2 Views of Recognised Scenic Value – Cork County Development Plan 2022-2028

Views of recognised scenic value are primarily indicated within Development Plans in the context of scenic views/routes designations, but they might also be indicated on touring maps, guide books, websites, road side rest stops or on post cards that represent the area.

Within the 5km extent there two scenic route designations which are outlined below:

Scenic Routes

- Scenic Route S37 - Road between Leemount and Macroom via Coachford
- Scenic Route S38 - Road between Classis, Curraghbeg and Coachford

All scenic designations within the study area have been visited during fieldwork investigations. Where there is potential for visibility of the proposed development, a representative view has been included within the visual impact appraisal.

1.4 EXISTING ENVIRONMENT

1.4.1 Landscape Baseline

The landscape baseline represents the existing landscape context and is the scenario against which any changes to the landscape brought about by the proposed development will be assessed. A description of the landscape context of the proposed development, wider solar farm and wider study area is provided below under the headings of landform and drainage, vegetation and land use, centres of population and houses, transport routes and public amenities and facilities. Although this description forms part of the landscape baseline, many of the landscape elements identified also relate to visual receptors i.e. places and transport routes from which viewers can potentially see the proposed development. The visual resource will be described in greater detail in **1.4.2**.

1.4.1.1 Landform and Drainage

The landform of the study area is largely influenced by the meandering corridor of the River Lee, which flows in an easterly direction through the study area. The River Lee is contained to the north of the proposed development at a distance of some 1.5 km and is the most prominent landscape feature within the study area and wider landscape. Its broad channel is often well-contained by rolling hills and ridges to the north and south. In terms of other land forms, some of the most elevated parts of the study area include Knockshanawee Hill (209m AOD) situated in the southern half of the study area. Overall, the terrain of the study area is characterised by rolling hills and winding river and stream valleys, the majority of which feed back into the River Lee.



Figure 1.6 Context of the central study area showing proposed solar parcels in relation to the proposed substation development

1.4.1.2 *Vegetation and Land Use*

The predominant land use within the central study area is rolling pastoral farmland bound by a mixture of hedgerow vegetation. The land use pattern tends to comprise larger, more open fields along the elevated rolling hills within the surrounding landscape, whilst the more enclosed valleys comprise smaller geometric field patterns. The study area also encompasses some notable areas of mature vegetation, especially in the surroundings of the River Lee, where linear corridors of mature riparian vegetation line the river corridor and provide some sense of containment. Hedgerows within the study area also comprises some notable mature trees, which presents somewhat of a parkland character in localised parts of the surrounding landscape. Small blocks of conifer forest are also discernible throughout the study area and are typically contained along more elevated lands. Other distinctive land uses within the study area include the mineral extraction industry, especially in the southern half of the study area in the surroundings of the N22. The N22 national primary route is also another notable linear land use within the study area, whilst Farran Wood recreational area and Lee Valley Golf Course are other prominent single land uses within the study area.

1.4.1.3 *Centres of Population and Housing*

The principal settlement in relation to the proposed solar farm development is Coachford, which is situated to the north of the River Lee and is some c. 3.8km northwest of the proposed substation development. Other small village settlements within the study area include the dispersed rural village of Farran located some c. 800m east of the site, the settlement of Dripsey, located some c. 3.8km north of the proposed development and Aherla located c. 2.9km south. In terms of the local settlement pattern, the surrounding local road network comprises small linear clusters of dwellings, cross-road settlements and numerous isolated farmsteads. Indeed, there is a more notable rural settlement pattern in the southern extent of the study area in the surrounds of the N22, which provides direct access to Cork City.

1.4.1.4 *Transport Routes*

The primary transport route within the study area is the N22 national secondary route that traverses the southern half of the study area in an east-west direction and provides surrounding settlements with direct access to Cork City. The N22 is located some c. 900m south of the proposed substation development at its nearest point. Other major routes within the study area include the R619 regional road and the R618 regional road, with the R619 passing less than c. 700m north of the proposed development, whilst the R618 regional road is situated on the northern side of the River Lee corridor and is located some c. 3 km north of the proposed development. The study area also encompasses a dense interconnecting web of local roads, the nearest of which passes directly between the proposed substation and proposed electricity strain towers.

1.4.1.5 *Tourism, Heritage and Public Amenities*

The principal amenity values within the study area are directly associated with the River Lee and its surrounding corridor, which comprise recreational and heritage features. A section of the Coachford Greenway is contained along the northern banks of the River Lee and provides pleasant views across the Lee corridor and its surrounding landscape context. The Coachford Greenway is located just over c. 1.9km north of the proposed substation development. Farran Wood's recreational amenity area is also located along the corridor of the River Lee and is some 1km north of the proposed development. The River Lee within the study area also plays host to the National Rowing Centre situated 1.5km north of the proposed substation development.

Several heritage features are also contained throughout the wider surrounds of the study area and include Carrigadrohid Castle, located along the River Lee corridor some c. 1km northwest of parcel 1, whilst Dripsey Castle Estate is located in the northern extent of the study area some c. 4km northeast of parcel 2.

As part of the Section 34 solar farm application, a 5km study area was used in the prepared Archaeological, Architectural and Cultural Heritage Impact Assessment Report (AIA) to assess potential visual impacts on cultural heritage features in the local environment. The potential for significant cumulative visual impacts for the collective project was screened out, as acknowledged by the Council. Where wider (partial) views are afforded, these are longer distance views of the project, located on private lands which are not accessible to the public as an amenity. The potential for visual impacts on heritage features is further considered under Section 4.3.3 of the submitted AIA for the subject application. The proposed substation compound is deemed to have a 'slight' effect on the visual amenity of CH071–CH085, CH097–CH101, a series of fulachtaí fiadh located along the underground cable route between the substation and interface towers. The monuments are located on private land and are not considered to be public amenities. Additionally, the low-lying nature of the monuments means that they are of limited existing visual amenity. Further, the presence of significant existing and proposed landscaping will screen and soften any views from public areas in practice .

1.4.2 Visual Baseline

Only those parts of the receiving environment that potentially afford views of the proposed development are of concern to this section of the assessment. The solar farm is excluded except in terms of the cumulative visual impact assessment which is presented in 1.7 below. A comprehensive visual baseline and impact assessment is provided in its respective planning application to Cork County Council (planning ref: 246157). A computer-generated Zone of Theoretical Visibility (ZTV) map has been prepared to illustrate where the proposed development is potentially visible from. The ZTV map is based solely on terrain data (bare ground visibility), and ignores features such as trees, hedges or buildings, which may screen views. Given the complex vegetation patterns within this landscape, the main value of this form of ZTV mapping is to determine those parts of the landscape from which the proposed development will definitely not be visible, due to terrain screening within the 5km study area.

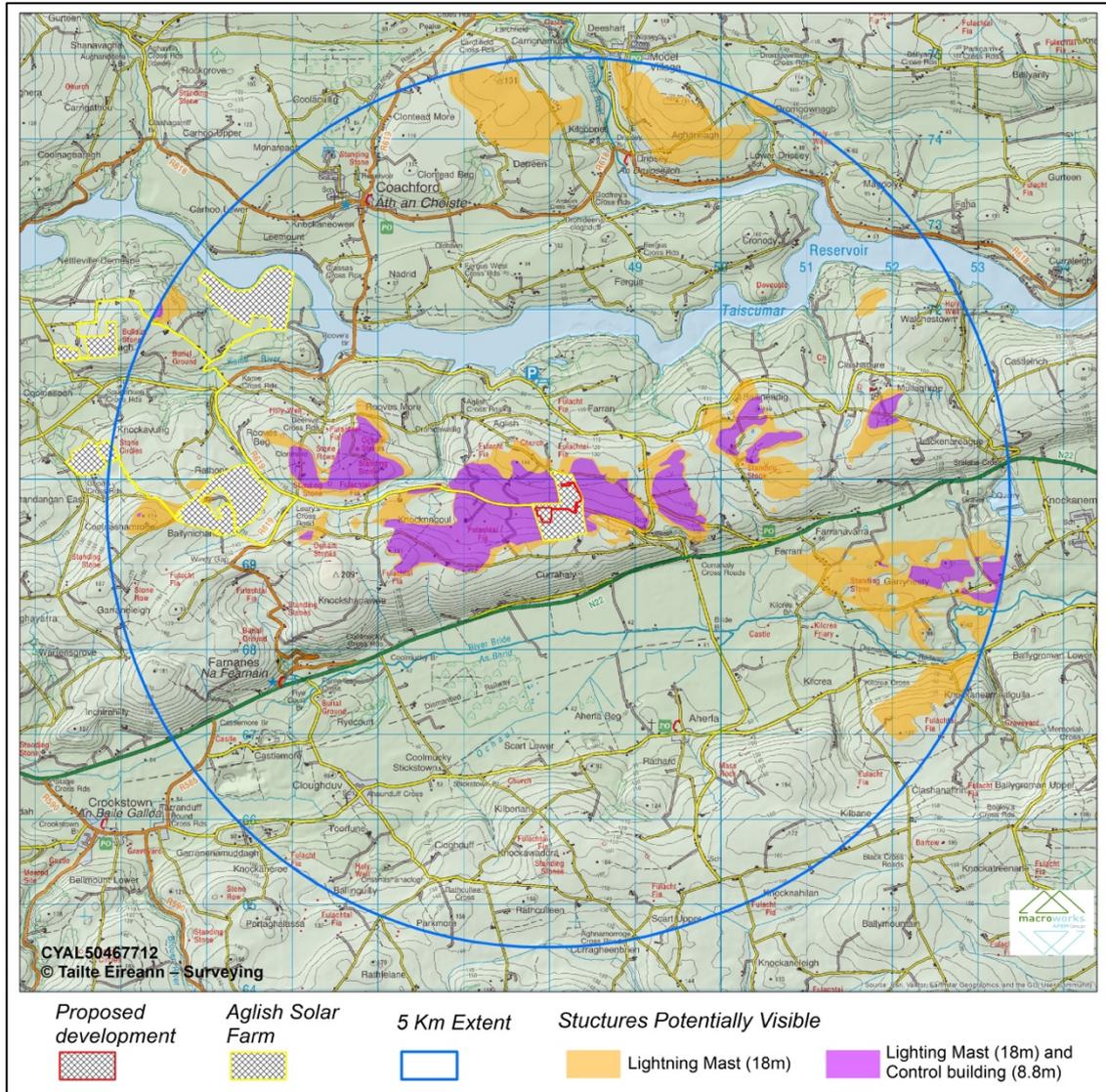


Figure 1.7 Standard (bare-ground) ZTV map

The following key points are illustrated by the 'bare-ground' ZTV map (see Figure 1.7 above):

- Due to the terrain screening from the surrounding rolling lands both north and south of the proposed SID development, theoretical visibility pattern is well contained to the immediate surrounds of the site and some isolated surrounding rolling hills.
- The visibility pattern tends to extend east and west of the proposed SID development, which reflects its location in a small valley between rolling ridges.
- Theoretical visibility of the proposed control buildings and lower built features tends to be contained in the immediate surrounds of the site, with some locally elevated areas to the east and west also potentially affording visibility of these components.
- Much of the visibility within the wider surrounding study area tends to be associated with just the proposed lightning masts. It should be noted from distance of 3-5km these slender features will be difficult to discern.
- There is no visibility of the proposed SID development within the immediate surroundings of the River Lee Valley or at the settlement of Coachford.

The most important point to make in respect of this ‘bare-ground’ ZTV map is that it is theoretical. Whilst some of the proposed substation buildings comprises of larger built forms as well as 2 no. interface towers, the surrounding landscape is heavily vegetated and will result in the proposed substation development being screened and softened by surrounding and intervening hedgerow vegetation, trees and numerous buildings, walls and embankments scattered throughout the study area.

1.4.2.1 Identification of Viewshed Reference Points as a Basis for Assessment

Viewshed Reference Points (VRP’s) are the locations used to study the visual impacts of a proposed development in detail. It is not warranted to include each and every location that provides a view of a development as this would result in an unwieldy report and make it extremely difficult to draw out the key impacts arising from the proposed development. Instead, the selected viewpoints are intended to reflect a range of different receptor types, distances and angles. The visual impact of a proposed development is assessed by Macro Works using up to 6 no. categories of receptor type as listed below:

- Key Views (from features of national or international importance) (KV);
- Designated Scenic Routes and Views (SR/SV);
- Local Community views (LCV);
- Centres of Population (CP);
- Major Routes (MR);
- Amenity and heritage features (AH).

VRP’s might be relevant to more than one category and this makes them even more valid for inclusion in the assessment. The receptors that are intended to be represented by a particular VRP are listed at the beginning of each viewpoint appraisal. The Viewshed Reference Points selected in this instance are set out in the Table 1.6 and Figure 1.8 below and are typically representative of local community receptors in the surrounds of the site. Whilst some other areas within the surrounding study area have the potential to afford views of the development as per the ZTV above, it is considered that the below viewpoints have the most notable potential to afford clear visibility of the development due to the surrounding land form and vegetation.

Table 1.6 Outline Description of Selected Viewshed Reference Points (VRPs)

VRP No.	Location	Representative of	Direction of view
VP1	Local road at Aglish	LCV	S
VP2	Local road at Currahaly	LCV	N/S
VP3	Local road at Farran	LCV, CP	W
VP4	Local road at Currahaly (2)	LCV	N

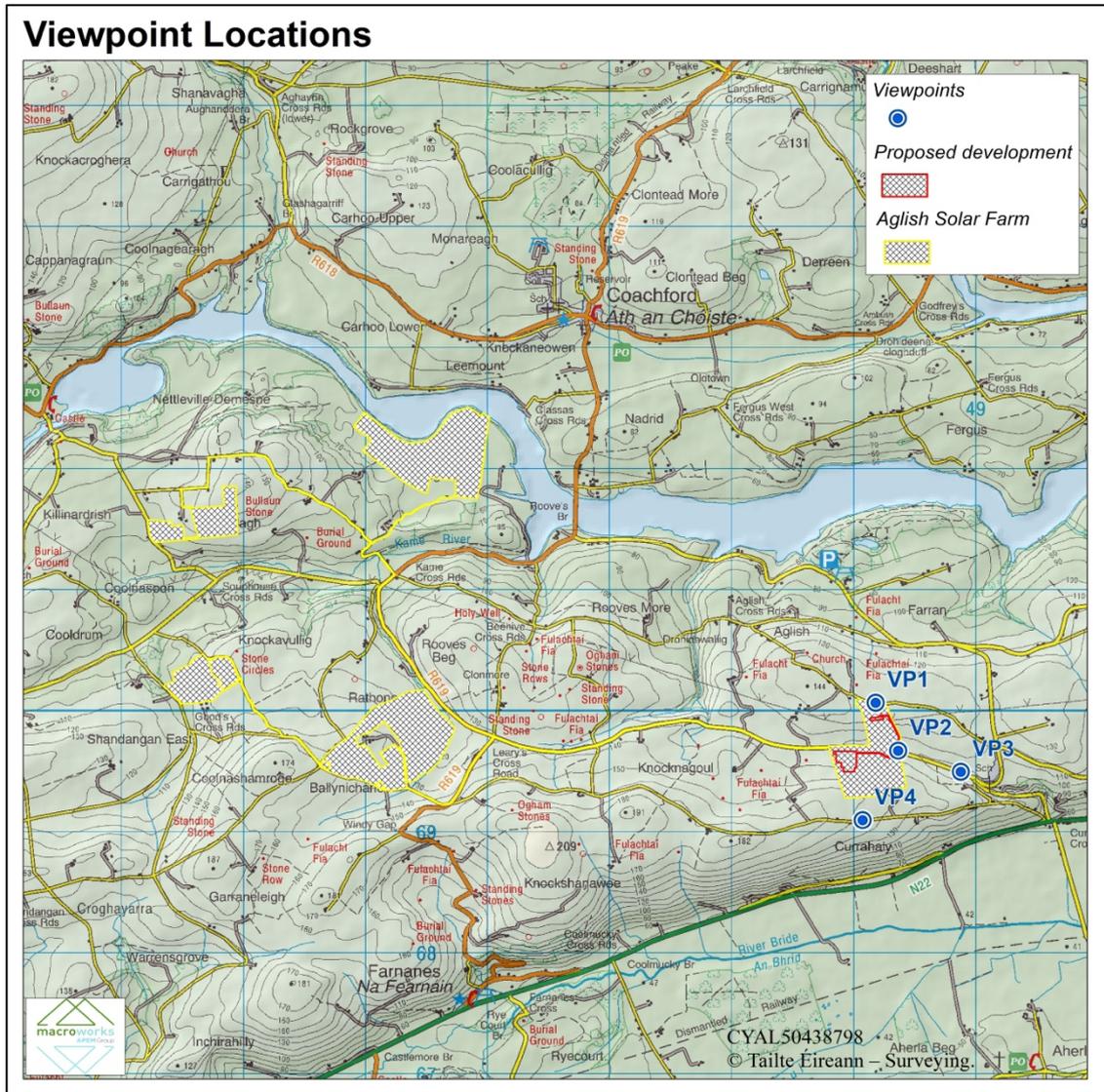


Figure 1.8 Viewpoint location map

1.5 MITIGATION AND RESTORATION MEASURES

The main mitigation by avoidance measure employed in this instance is the siting of the proposed SID development and wider solar farm in a robust rolling rural area that avails of a high degree of vegetative screening, so that the proposed SID development and wider solar farm will not be a highly prominent feature within the surrounding landscape.

In addition to mitigation by avoidance measures, retention of existing hedgerow boundaries within and around the site aids visual screening, and maintains the existing field pattern. In this respect, the proposed solar farm (including the substation, interface towers and grid connection) is not perceived to impose itself on the existing landscape pattern.

In addition to retaining the existing hedgerows within around the site, it is also proposed to bolster existing perimeter and internal hedgerows with under-planting and inter-planting of whip transplants (i.e. Hedgerow Type 1 - see Figure 1.9 below) in order to ensure dense and consistent screening of the site in perpetuity. This will be undertaken where required to thicken and fill gaps in the existing hedgerow network prior to the construction phase, thus allowing for any growth in the period between a grant of planning permission and construction of the development. Advanced nursery stock in the form of 8-10cm girth trees will be used to fill any noticeable gaps and plant species will be selected to complement the existing broadleaf hedgerow species mix around the site and will be of local provenance. Where not already exceeded by existing vegetation, it is intended to manage hedgerows up to 3-4m in height. This height will be achieved by a combination of allowing lower sections of existing hedgerows to mature, filling obvious gaps with advanced nursery stock and providing an additional line of whip planting to selected hedgerows that require densification. Refer to the Landscape Mitigation Plan LD.AGLSH-SLR_SID for details.

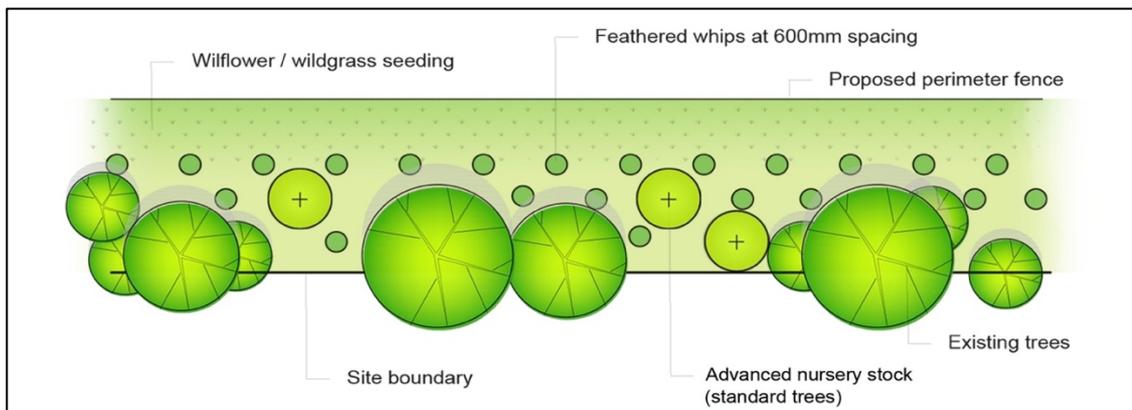


Figure 1.9 Hedgerow Type 1: indicative boundary planting detail showing the approach to inter-planting and under-planting of existing hedgerows (where consolidation is needed).

It is also proposed to plant several sections of new 'Type 2' hedgerows (Figure 1.10 refers), with whips and a high proportion of advance nursery stock trees (c.3m planted height), along the boundaries of some of the proposed parcels to further screen the proposed development from some of the nearest surrounding receptors (refer to Landscape Mitigation Plan drawing package LD.AGLSH-SLR). All of this planting will be allowed to mature up to a maintained height of 3-4m to aid in the screening and softening of the proposed SID development and wider solar farm from nearby dwellings and surrounding local, regional and national roads.

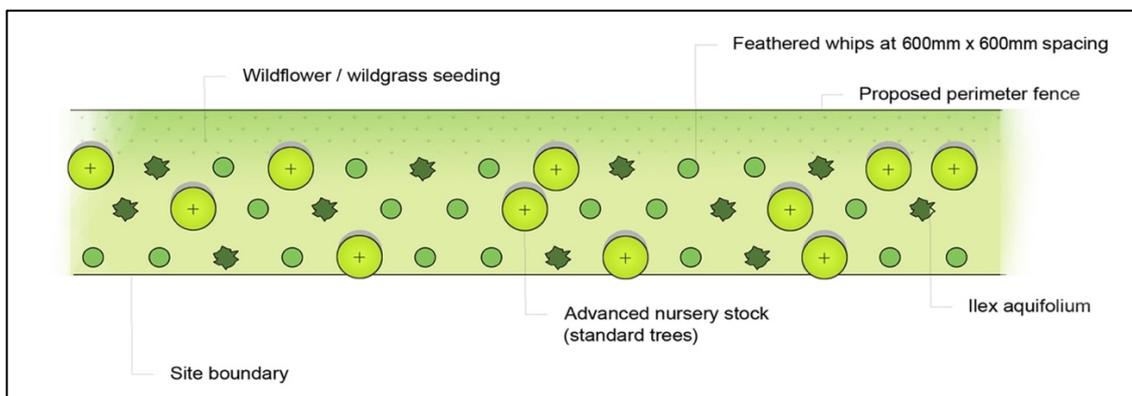


Figure 1.10 Indicative boundary planting detail showing the introduction of new boundary hedgerow TYPE 2

Furthermore, at an early stage of the design process, additional setbacks from some of the nearest residential dwellings to the proposed SID development and wider solar farm were included to mitigate the potential for visual impacts. Residential setbacks have been included from the residential dwellings along throughout the site, whilst new sections of hedgerow are also proposed offset from several of these dwellings to provide screening of the site, whilst retaining some sense of openness in their immediate surrounds.

It is also proposed to include early-stage planting within and around the site as part of the landscape mitigation proposals. It is proposed to undertake the early-stage planting during the first month of the proposed construction phase, which lasts a total of 24 months (inclusive of proposed substation, interface towers and grid connection). As a result, the early stage planting will have up to two growing seasons to establish, prior to the implementation of the proposed substation development and solar panels. Thus, once implemented, the proposed planting measures will soften and screen the proposed development and some construction-related activities from surrounding receptors. By the time the proposed SID substation and wider solar farm construction has concluded, the proposed planting will have been in place for more than two growing seasons, allowing the advanced nursery stock and whips to slightly fill out and further screen and soften the proposed development. It is important to note that the montage view in the submitted photomontage set represents the proposed development at construction month 12 when the panels have been implemented and the proposed mitigation planting has up to two growing seasons to fill out.

1.6 IMPACT ASSESSMENT

1.6.1 Do-nothing scenario

The '*do-nothing*' impact refers to the non-implementation of the proposed development. The primary effect of this would be that the impacts and effects identified would not directly occur. In this regard the following issues are relevant. The site, which is currently contained in pastoral farmland, would likely be managed for typical agricultural practices, whilst the surrounding perimeter vegetation would continue to grow out, some of which would be maintained by the current landowners.

1.6.2 Assessment of Receptor Sensitivity – Landscape

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

This is a pleasant but robust landscape context, where a notable sense of scenic amenity is evident and principally relates to the River Lee and its surrounding context. The River Lee itself is one of the principal landscape features within the study area and heavily influenced the character and landform of the surrounding landscape. It provides a notable sense of amenity within the study area and its wider surroundings, as well as encompassing walking and cycling trails and the national rowing centre, among other amenities. Beyond the context of the wider River Lee Valley, the central study area presents as a relatively typical rolling rural landscape that is predominately contained in working rural land uses such as pastoral farmland. Indeed, the study area also encompasses some notably anthropogenic land uses, such as the mineral extraction industry, where a string of quarries and sand pits are contained along the N22 corridor just over 1km south of the proposed SID development. It is also important to note that several quarries are also contained within the immediate context of the River Lee corridor in the wider surrounding landscape.

With regard to the SID substation site, it is located in a somewhat contained part of the surrounding landscape, with enclosure both to the north and south from surrounding landform. Indeed, whilst these presents with some remote characteristics, there is no strong sense of scenic amenity within its immediate surroundings. Indeed, the most notable aspects of scenic amenity tend to relate to the ridges both north and south, where the main aspects of amenity are typically in the opposite direction to the site.

In terms of landscape designations, the study area is divided into two landscape types: LCT 8 - Hilly River and Reservoir Valleys is contained in the northern extent of the study area, whilst LCT 6a - Broad Fertile Lowland Valleys is located in the central wider southern half of the study area and contains the proposed SID substation site. LCT6a is classified with a 'High' landscape sensitivity and 'County' level landscape importance, whilst LCT 8 is classified with a 'High' landscape value, 'High' landscape sensitivity, and 'National' level landscape importance. LCT 8 is considered the more susceptible LCT as it contains the River Lee, and thus, it is also classified with one of Cork's susceptible 'High-Value Landscape' classifications. With regard to visual designations, the study area encompasses two extensive scenic route designations, both of which are directly related to the scenic amenity that is presented along the River Lee corridor. Scenic routes S37 and S38 follow a combination of local and regional roads that traverse either side of the River Lee corridor.

Overall, it is considered that landscape values within the study area are generally associated with productivity and rural subsistence rather than any sense of rarity or the naturalistic. Nevertheless, there are some susceptible scenic and recreational landscape values that pertain to the River Lee corridor in the northern extent of the study area. Much of these values and their associated sensitivities are localised to the River Lee corridor. Therefore, on balance of these factors and in accordance with the criteria outlined in in Table 1.1, the landscape sensitivity is deemed to be **Medium-low** within the study area with localised areas of higher sensitivity in the immediate surrounds of the River Lee corridor. [This sensitivity classification aligns with the classification identified in the submitted solar development LVIA \(Cork County Council planning ref: 246157\)](#)

1.6.3 **Assessment of Receptor Sensitivity – Visual**

The study area generally presents as a typical rural landscape, albeit some receptors within the study area have a more heightened sensitivity due to the presence of the broad River Lee Valley, which generates some sense of distinctiveness in localised part of the surrounding study area. Nonetheless, the landscape for the most part is a typical rural landscape where landscape values and land uses are most often associated with rural productivity.

With regard to the substation and grid connection development site, the principal receptors are largely local community receptors influenced by the typical rural landscape surrounding the development. These are classified as having a Medium–Low receptor sensitivity. To the east of the site, there is a more notable cluster of residential dwellings, whilst similarly the southern half of the study area in proximity to the N22 has a higher concentration of residential receptors. To the south, the landscape is influenced by the major route corridor of the N22, whilst there are also several mineral extraction land uses highlighting the robust and modified nature of this setting. These areas and the visual receptors within them tend to be less susceptible to visual change and are therefore classified as Medium–Low and Low.

The most scenic and susceptible parts of this landscape context are typically associated with the River Lee Valley, which is contained in the northern extent of the study area. The scenic amenity afforded here is further reinforced by the two scenic routes on either side of the River Lee corridor, traversing the full extent of the 5km study area. Nevertheless, it is important to note that large sections of these scenic routes often afforded limited visibility towards the River Lee corridor and are well contained by surrounding layers of dense vegetation. Despite this, the River Lee corridor is still considered a highly susceptible visual receptor within the study area and also encompasses recreational features along its corridor such as a Greenway and forest park and is also home to the national rowing centre. Overall, it is considered that the River Lee corridor and surrounding scenic amenity and recreational receptors have a receptor sensitivity ranging between Medium to High, with those of a higher sensitivity affording near-distance clear views of the River Lee corridor.

Views of the working agricultural landscape are generally pleasant in terms of its rolling pastoral aesthetic and 'green', settled working character. The network of hedgerows and vegetation throughout it contributes to some sense of naturalness and, combined with its undulating topography, generates a sense of containment in many locations. However, whilst a pleasant pastoral aesthetic is noted throughout some parts of the study area, as noted above, this is a typical robust rural landscape that is not considered high rare or distinctive. Overall, the sensitivity of visual receptors within the more typical working landscape context tends to range between Medium and Medium-low, with those of a Medium sensitivity representing more open expansive views across the wider landscape.

Key differentials in terms of visual receptor sensitivity relate to the occupation of the visual receptor and whether views of the surrounding landscape are an inherent part of the experience. Static residential receptors are considered generally more susceptible to changes in views over those where views are experienced transiently by those travelling through the landscape, particularly on major transport routes where road infrastructure and traffic volume draw from visual amenity. Likewise, receptors located in closer proximity to the site are considered more susceptible to changes in views over those where views are experienced at a distance.

On the basis of the site-specific factors outlined above and in accordance with the general visual receptor sensitivity considerations contained in the methodology Section 1.2.5, visual receptor sensitivity judgements are provided for each representative viewpoint in the table below in section 1.6.7 below.

It is important to note that these visual receptor sensitivity classifications align with the classifications identified in the submitted solar development LVIA (Cork County Council planning ref: 246157)

1.6.4 **Magnitude of Landscape Effects – Construction Stage**

In terms of physical landscape effects, the proposed SID development will require some localised excavation works to facilitate the foundations of the proposed IPP control building, interface towers and other ancillary electrical infrastructure equipment. Some sections of new internal access/service tracks will be constructed to service the substation and these will be similar in nature to farm tracks that can be found throughout this rural context. The proposed substation will require minor reprofiling of the terrain within the substation compound resulting in some localised areas of cut and fill as well as removal of the prevailing grassland land cover. The proposed development will be accessed for both the construction and operational phases by means of an entrance from the local road to the northeast of the substation compound

In terms of physical construction stage landscape effects for the wider project, the proposed solar farm will not require any significant excavation that would permanently alter the landform of the site. Some sections of new internal access/service tracks will be constructed to service the site and these will be similar in nature to farm tracks that can be found throughout this rural context.

The Proposed AGLISH Solar Farm application includes for the removal of some c. 97 linear meters of existing hedgerow and two mature trees will be required to facilitate the construction of access track throughout the proposed solar parcels. Notwithstanding the above areas of removal, this will be offset by the planting of c. 1,194 linear meters of new native hedgerow and the bolstering of some c. 22,285 linear meters of existing hedgerow 'as necessary' to fill any existing gaps in the hedgerows. There will be no further removal or planting required as part of the proposed SID substation development as it is wholly contained within the parcels that form part of the proposed solar farm application.

All substation and grid connection works will be carried out in accordance with international best practice and full compliance with health and safety requirements. Construction of the proposed substation is estimated to take 24 months to complete. Construction related effects are, therefore, brief in nature and will only result in short-term landscape and visual impacts. Overall, the magnitude of construction stage effects is deemed Medium.

Combined with the Medium-low landscape sensitivity of the study area, the significance of construction stage effect is deemed Moderate-Slight and of a Negative quality.

It is important to note that these effects align with the landscape effects identified in the submitted solar development LVIA (Cork County Council planning ref: 246157)

1.6.5 **Magnitude of Visual Effects – Construction Stage**

During construction, the main visual impacts will arise from frequent heavy vehicle movements and worker vehicles travelling to and from the site and using the site entrance. In addition, there will be construction machinery on site, which may rise above intervening vegetation and buildings. There will also be some localised stockpiles of stripped topsoil, construction materials awaiting use and a small construction compound located on the site. There is also likely to be tower cranes erected on site to facilitate the construction of the proposed SID substation and interface masts, which will likely be visible over a wider area than the substation development itself.

However, aside from the site's immediate vicinity, a large part of this short-term activity within the site will remain screened and partially screened from view the surrounding mature layers of intervening vegetation. Furthermore, construction-related activity is short-term in nature and will cease once the development becomes fully operational. Thus, construction stage impacts are likely to result in a visual effect no greater than Medium in the immediate surroundings of the site.

Coupled with the Medium and Medium-low visual receptor sensitivities in the immediate surrounds of the site, the construction stage visual impacts in the immediate vicinity of the site will be no greater than **Moderate**, and will reduce considerably beyond 500m-1000m from the site, where the proposed development will be heavily screened. As a result, construction stage visual impacts are not considered to be significant.

It is important to note that these effects align with the visual effects identified in the submitted solar development LVIA (Cork County Council planning ref: 246157)

1.6.6 **Magnitude of Landscape Effects – Operational Stage**

There will be some very localised physical landscape effects in the immediate context of the proposed substation compound, however, for the most part, the terrain of the site will remain largely unaltered. In fact, the proposed landscape mitigation measures, which comprises the enhancement (bolstered) existing hedgerow, will generate some localised positive landscape effects during the operation phase of the proposed development.

Whilst the wider solar farm will be decommissioned after 40 years, the proposed substation and grid connection will remain as part of the electricity transmission network, and thus, landscape effects generated by the proposed substation development are deemed Permanent in terms of duration. It is important to note that existing electricity cables and pylon structures are characteristic features of this rural landscape, and thus, the introduction of the proposed substation and interface masts represents the intensification of an established land use as opposed to the introduction of a new and unfamiliar one. Furthermore, due to the relatively contained nature of the SID substation development, there will be limited parts of the study area that will afford visibility of the proposed substation, as evidenced in the ZTV above (refer to Figure 1.7). Thus, the limited visibility of the proposed substation development and wider solar farm will heavily diminish the development's potential to alter the surrounding landscape character.

Aside from landscape impacts generated from construction of the proposed substation, the operational landscape impacts from the proposed solar farm are, for the most part 'reversible'. The native hedgerows within and around the site, which will have consolidated as part of the mitigation strategy, will remain as an enduring and positive legacy of this proposed development.

On the basis of the factors discussed above it is considered that the magnitude of operational stage landscape effect is Medium within the immediate vicinity, being those lands contained within approximately 500m of the proposed development. Thereafter, the magnitude of the operational stage landscape impact is deemed to reduce to Low and Negligible, as the proposed development becomes a progressively smaller component of the overall landscape fabric.

With reference to the significance matrix (Table 1.4) above, the **Medium-low** landscape sensitivity judgement attributed to the study area, coupled with a **Medium** magnitude of landscape effect in the immediate vicinity (<500m) of the proposed development is considered to result in an overall significance of no greater than **Moderate-slight**, with the remainder of the 5km radius study area likely to experience **Slight** or **Imperceptible** landscape impacts.

It is important to note that these effects align with the landscape effects identified in the submitted solar development LVIA (Cork County Council planning ref: 246157)

1.6.7 **Magnitude of Visual Effects – Operational Stage**

The assessment of visual impacts at each of the selected viewpoints is aided by photomontages of the proposed development. Photomontages are a 'photo-real' depiction of the scheme within the view utilising a rendered three-dimensional model of the development, which has been geo-referenced to allow accurate placement and scale. For each viewpoint, the following images have been produced:

1. Existing view;
2. Outline view (yellow outline showing the extent of the proposed solar farm location and the proposed substation including all associated overground works overlaid on the photograph);
3. Montage view (landscaping at Construction Month 12 – Solar Panels and proposed Substation Installed – early stage planning after two growing seasons) – this includes a fully rendered view of the proposed substation, however this will form part of a separate application to An Bord Pleanála as a Strategic Infrastructure Development; and
4. Montage view with mitigation established.

As indicated in the planning application drawings, the solar panels proposed on this site may range from 2.0m – 3.25m in height. The photomontages that provide the basis for this visual impact assessment include panels rising to a height of 3.25m, representing a worst-case scenario in terms of potential panel visibility and wider impact assessment considerations. It is not considered that panels in the lower ranges of this panel design envelope will generate any additional visual impacts other than those stated below. Indeed, the smaller panels have the potential to be further screened by surrounding hedgerow vegetation and generate marginally reduced visual impacts. As such, all panel heights within the range specified in the planning application drawings are considered in this assessment in terms of impact assessment.

VP NO.	EXISTING VIEW	VP SENSITIVITY	VISUAL IMPACT MAGNITUDE (PRE & POST MITIGATION)	PRE MITIGATION SIGNIFICANCE / QUALITY / DURATION OF IMPACT	POST MITIGATION SIGNIFICANCE / QUALITY / DURATION OF IMPACT
VP1	<p>Local road at Aglish - This is a partially contained aspect of a view from a local road in the townland of Aglish. The depicted view is oriented to the south and is partially truncated at the roadside edge by a hedgerow. A brief view through an agricultural gateway in the roadside hedgerow is afforded and is contained in the distance by rolling pastoral lands.</p>	<p>Medium-low</p>	<p>With regard to the proposed SID development the two proposed interface masts will be intermittently visible to the south rising to a height of c. 16m. These utilitarian structures will be visible from this local road context and will present above the roadside hedgerow, viewed backed by the sky. Whilst they will extent the vertical extent of built development in this aspect of the view, electrical infrastructure is not an unfamiliar feature in this robust rural setting. The other aspects of the proposed substation development will be fully screened here.</p> <p>The proposed panels will also be partially visible here, owing to the neighbouring roadside hedgerow and the panel offsets of up to c. 50m from the nearest section of the site boundary. A brief view of the proposed panels has the potential to be afforded through the agricultural field entrance, but this will only result in a fleeting view for users of the local road. There is potential for an increased degree of visibility from the first floors of the adjacent residential dwellings, where visibility of the panels in parcel 6 further to the south also has the potential to be afforded. Nevertheless, the proposed panels are contained within the existing field pattern and will not appear out of place in this robust rural context. It is also important to note that one of the existing overhead cable pole sets in parcel 5 to the south will be decommissioned.</p>	<p>Slight / Negative / Medium-term</p>	<p>Slight-Imperceptible / Negative / Long-term</p>



VP NO.	EXISTING VIEW	VP SENSITIVITY	VISUAL IMPACT MAGNITUDE (PRE & POST MITIGATION)	PRE MITIGATION SIGNIFICANCE / QUALITY / DURATION OF IMPACT	POST MITIGATION SIGNIFICANCE / QUALITY / DURATION OF IMPACT
			<p>Overall, the magnitude of effect is deemed no greater than Low.</p> <p>Once the proposed mitigation screen planting has fully established, the proposed panels and interface masts will be entirely screened from this local road context. Nonetheless, there is some potential for visibility of the proposed development to be afforded from the first floor windows of the neighbouring dwelling. Thus, the residual magnitude of effect will reduce to Low- Negligible.</p>		
VP2	<p>Local road at Currahaly - This is a pleasant view oriented both to the north and south afforded from a local road in the townland of Currahaly. Both views to the north and south are almost identical and extend across low-scrubby hedgerows along the local road context towards low-rolling terrain and intervening hedgerow vegetation. Both views are contained at a short distance by the low rolling terrain.</p>	Medium-low	<p>The proposed substation will be partially visible to the south of this local road, slightly further to the west of this viewpoint, whilst the proposed interface masts are viewed in the opposite direction uphill to the north. Both the substation and interface mast increase the vertical extent of development in this view and will be viewed in combination with and partially screened by the nearest sections of the panels within the wider solar farm development.</p> <p>The proposed panels will be visible both to the north and south of this local road corridor. Indeed, the panels situated on both sides of the road corridor along sloping terrain further accentuate their visual presence along this relatively short section of local road (< c. 650m). The panels located along sloping terrain will generate a notable degree of enclosure along this already partially enclosed section of the local road and will result in a marked degree of visual</p>	<p>Moderate / Negative / Medium-term</p>	<p>Slight / Negative / Long-term</p>



VP NO.	EXISTING VIEW	VP SENSITIVITY	VISUAL IMPACT MAGNITUDE (PRE & POST MITIGATION)	PRE MITIGATION SIGNIFICANCE / QUALITY / DURATION OF IMPACT	POST MITIGATION SIGNIFICANCE / QUALITY / DURATION OF IMPACT
			<p>change. However, these effects will only be relatively brief and occur along sections of the local road that traverse immediately adjacent to the site. It is also important to note that one of the existing overhead cable pole sets in parcel 5 to the north will be decommissioned.</p> <p>Overall, the proposed SID development and wider solar farm represents an increase in the intensity of development along this section of the local road that is currently influenced by little other built features. On balance of the reasons outlined above, the magnitude of visual effect is deemed High-medium.</p> <p>Once the proposed mitigation screen planting has fully established, there will be a considerable reduction in the visibility of the proposed panels and substation from this local road context. Whilst some residual visibility will still be afforded through the site entrances on both sides of the local road, this will be fleeting visibility for road users travelling east and west. Indeed, the enhanced hedgerow vegetation, which will be managed at a height of c. 3-4m, will also generate a sense of enclosure along this local road context, however, roads enclosed by hedgerow vegetation are a characteristic feature of the rural landscape, and thus, will not appear out of place. Nonetheless, it still represents a degree of visual change in comparison to the baseline context.</p>		



VP NO.	EXISTING VIEW	VP SENSITIVITY	VISUAL IMPACT MAGNITUDE (PRE & POST MITIGATION)	PRE MITIGATION SIGNIFICANCE / QUALITY / DURATION OF IMPACT	POST MITIGATION SIGNIFICANCE / QUALITY / DURATION OF IMPACT
			Overall, the magnitude of effect will reduce to Low once the proposed mitigation screen planting has fully established.		
VP3	Local road at Farran - This is a channeled view from a local road in the townland of Farran, immediately east of the village of Farran. The depicted view is oriented to the west and is contained on both sides by a mix of dense vegetation and low rolling terrain. The eastward view is contained at a short distance to the east by the surrounding rolling terrain and roadside vegetation.	Medium-low	<p>This view is located only some c. 500m east of VP2 above but has a substantially different view of the proposed development. With regard to the proposed SID development only the proposed lightning masts in the substation and the proposed interface masts, which are slender in nature, will be theoretically visible from here. The interface masts will be fully screened by the surrounding vegetation, whilst the lightning masts will be barely discernible due to their slender forms.</p> <p>The proposed panels in parcel 5 will be almost entirely screened from here by dense roadside vegetation located along the northern extent of this local road corridor. A partial side-on view of the panels in parcel 6 will be visible rising along the sloping terrain to the southwest, where the boundary hedgerow to the east of parcel 6 will partially and intermittently screen the proposed array. Nonetheless, the jagged-edge side-on profile of the panels will be viewed here against the sky at a distance of some c. 500m.</p> <p>Overall, the proposed SID development and wider solar farm will have little notable effect on the visual amenity of this scene, albeit the visible panels will</p>	Slight-imperceptible / Negative / Medium-term	Imperceptible / Neutral / Long-term



VP NO.	EXISTING VIEW	VP SENSITIVITY	VISUAL IMPACT MAGNITUDE (PRE & POST MITIGATION)	PRE MITIGATION SIGNIFICANCE / QUALITY / DURATION OF IMPACT	POST MITIGATION SIGNIFICANCE / QUALITY / DURATION OF IMPACT
			<p>generate a marginal increase in the intensity of built development in this rural scene. Overall, the magnitude of visual effect is deemed Low-negligible.</p> <p>Once the proposed mitigation screen planting has fully established around the perimeter of the proposed development, the proposed panels will be entirely screened here, with the only residual visibility of the development being the proposed lightning masts in the substation. Thus, post-mitigation establishment, the residual magnitude of effect will reduce to Negligible.</p>		
VP4	<p>Local road at Currahaly south of parcel 6 - This is a pleasant, slightly uphill view across an open pastoral field from locally elevated terrain in the townland of Currahaly. The view is contained on the opposite side of the neighbouring field by a low ridge in the terrain and a low intervening tree-lined hedgerow. It is important to note that the main aspect of visual amenity along this local road context is to the south across a broad rolling open landscape, whereas to the north, the view is contained at a short distance.</p>	Medium-low	<p>The proposed substation will be fully screened by the rolling terrain from this visual context.</p> <p>With regard to the wider solar farm, the proposed panels present as a thin linear band rising just above the boundary vegetation at a distance of some c. 190m to the north of this local road. Whilst the panels will not be a visually prominent feature in this slightly uphill view, their built form presents against the skyline and provides a notable contrast with the more organic forms of the surrounding hedgerow vegetation. Nonetheless, the panels will only rise slightly above the boundary vegetation and are viewed opposite to the main aspect of scenic amenity along this road, which is to the south, where broad views are afforded of rolling pastoral lands in</p>	Slight-imperceptible / Negative / Medium-term	Imperceptible / Neutral / Long-term



VP NO.	EXISTING VIEW	VP SENSITIVITY	VISUAL IMPACT MAGNITUDE (PRE & POST MITIGATION)	PRE MITIGATION SIGNIFICANCE / QUALITY / DURATION OF IMPACT	POST MITIGATION SIGNIFICANCE / QUALITY / DURATION OF IMPACT
			<p>the southern half of the study area. The proposed substation will not be visible from here. Overall, prior to the establishment of the proposed mitigation screen planting, the magnitude of effect is deemed Low-negligible.</p> <p>Once fully established, the proposed mitigation screen planting will entirely screen the view of the panels from this landscape context, and thus, the residual magnitude of effect will reduce to Negligible.</p>		

1.6.8 **Monitoring**

1.6.8.1 *Construction Phase*

Landscape tender drawings and specifications will be produced to ensure that the landscape work is implemented in accordance with best practice. A landscape management and maintenance schedule also forms part of the solar application, which includes relevant information for the substation aspect of the development. This document will include tree work procedures, soil handling, planting and maintenance. The contract works will be supervised by a suitably qualified landscape architect.

It is also proposed to include early-stage planting within and around the site as part of the landscape mitigation proposals. It is proposed to undertake the early-stage planting during the first month of the proposed construction phase, which lasts a total of 24 months (inclusive of proposed substation and grid connection). As a result, the early stage planting will have up to two growing seasons to establish, prior to the implementation of the proposed solar panels, which will be included during at month 12 of the 24 month construction programme. Thus, once implemented, the proposed planting measures will soften and screen the proposed panels and some construction-related activities from surrounding receptors. By the time the proposed solar farm construction has concluded, the proposed planting will have been in place for more than two growing seasons, allowing the advanced nursery stock and whips to slightly fill out and further screen and soften the proposed development. It is important to note that the montage view in the submitted photomontage set represents the proposed development at construction month 12 when the panels have been implemented and the proposed mitigation planting has up to two growing seasons to fill out.

All tree protection requirements will be installed on commencement of the development and removed on a phased basis as stages of the development are completed.

1.6.8.2 *Operational Phase*

This will consist of weed control, replacement planting, pruning etc. All landscape works will be in an establishment phase for the initial three years from planting. All works will be monitored on an ongoing basis to ensure the quality of the development is maintained. Details of all monitoring and maintenance are outlined in the Landscape Management and Maintenance Schedule for the proposed development.

1.7 **CUMULATIVE EFFECTS**

The principal potential cumulative effects relate to the wider solar farm application, which is directly linked to the proposed SID project. The combined developments will increase the intensity and scale of electrical infrastructure and solar development within the surrounding landscape. Indeed, as the SID development is fully contained within the bounds of the proposed wider solar farm development its potential to generate any notable additional landscape effects is limited.

Overall, the combined effect of both aspects of the overall project has been accounted for within this assessment and within the landscape and visual effects assessment for the proposed solar element of the development. The combined effect of the two developments will be of a moderate to lower order of residual effects in terms of both landscape and visual effects. Consequently, it is not considered that the combined substation and solar development will result in significant cumulative effects.

1.8 CONCLUSIONS

In terms of landscape impacts, the proposed development is considered to have only a modest physical impact as it is consolidated within the existing hedgerow network and will not require significant excavation works to construct either the solar panels or the access and maintenance tracks, underground cable connections or substation.

In terms of impacts on landscape character, the proposed SID substation development and wider solar farm represent the introduction of a new and relatively unfamiliar form of built development into a rural setting. Nevertheless, the proposed SID substation is located in a well contained part of the surrounding local landscape, which limits its potential to alter the surrounding landscape character beyond its immediate surrounding context. The substation development is also located along the alignment of an existing overhead cable corridor, and thus, is likely to be perceived as an intensification of electrical infrastructure in this context as opposed to the introduction of a new and unfamiliar form of built development.

It is also important to note that the proposed wider solar development is also well contained within the existing field boundaries and has little impact on the overall structure of the receiving landscape. In fact, as part of the proposed landscape mitigation measures, the proposed development will see the enhancement and protection of considerable areas of hedgerow vegetation, the planting of new native hedgerows and the management of grasslands for biodiversity, leaving a positive legacy on the site and surrounding landscape. Although the proposed wider solar development will present as an unfamiliar development type in this context, it represents a form of agricultural diversification and will not appear incongruous in this working landscape setting.

The site and its immediate surroundings constitute a robust and productive rural landscape with associated agrarian landscape values. Whilst the proposed SID development and wider solar farm will result in the intensification of built development on the receiving agricultural lands, it does not markedly affect the prevailing landscape pattern or overriding rural landscape character of the area and represents a form of agricultural diversification. Therefore, combined with the 'Medium-low' magnitude of operational stage landscape impact, the overall significance of operational stage landscape effect was deemed no greater than 'Moderate-slight' and of a Negative quality.

Visual impacts were assessed at 4 viewpoints throughout the immediate and wider landscape context, representing various viewing distances, angles and receptor types. The sensitivity of visual receptors at all 4 representative viewpoints was classified as medium-low as they represent relatively typical rural areas and are not considered highly distinctive or rare in any sense.

The residual significance of visual effect ranged between 'Slight' and 'Imperceptible', despite the fact that all four representative viewpoints are contained within the immediate context of the site,.. This clearly demonstrates the well contained nature of this part of the wider solar farm site, which will be further screened and softened by the proposed landscape mitigation planting. Viewpoint VP2 was classified with a residual 'Slight' significance of visual effect as there will be some degree of visual change in comparison to the baseline context. Indeed, whilst the SID and wider solar farm development will be largely screened from this local road once the proposed mitigation screen planting has fully established, the screen planting will generate some degree of enclosure screening the views of the rolling agricultural fields visible in the baseline view. Nevertheless, local roads enclosed by hedgerow vegetation are commonplace in the rural context, and thus, this element of visual change will not appear incongruous in this landscape context.

Overall, it is considered that the proposed SID development and wider solar development is a suitably sited and scaled development that is well-screened by the surrounding layers of dense vegetation. Furthermore, in terms of the surrounding landscape and visual policy, it is not considered that the proposed solar development will conflict with landscape and visual-related policy in the Cork County Development Plan.

It should also be noted that that on receipt of further information details provided by the applicant to CCC, the senior planner noted "that the development will have a localised impact but will not unduly impact on the character of the wider area". In this regard, it is considered that the localised effects generated by the proposed development were deemed acceptable by the planning authority.

1.8.1 **Overall Significance of Effect**

Based on the landscape and visual impact judgements provided throughout this LVIA, the proposed Drumdowney SID substation and grid connection is not considered to give rise to any significant residual effects.

1.9 REFERENCES

- Landscape Institute and the Institute of Environmental Management and Assessment (IEMA) publication entitled Guidelines for Landscape and Visual Impact Assessment, 2013 (GLVIA3);
- Environmental Protection Agency (EPA) publication 'Guidelines on the Information to be contained in Environmental Impact Statements (2022); and
- 'Photography and Photomontage in Landscape and Visual Impact Assessment', Landscape Institute Technical Guidance Note 06/2019.