Borrisbeg Grid Connection

Chapter 13: Landscape and Visual Impact

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Landscape and Visual Impact Assessment (LVIA)

Borrisbeg Renewable Energy Development
Proposed Grid Connection

Borrisbeg, Co. Tipperary.

Prepared by Macro Works Ltd.

July 2025

13 LANDSCAPE AND VISUAL IMPACT ASSESSMENT

13.1 INTRODUCTION

This chapter Environmental Impact Assessment Report (EIAR) identifies, describes, and presents an assessment of the likely significant effects on landscape character and visual amenity from the Proposed Grid Connection .

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 proposal 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).

This LVIA uses methodology as prescribed in the following guidance documents:

- Environmental Protection Agency (EPA) publication '*Guidelines on the Information to be contained in Environmental Impact Statements* (2022);
- Landscape Institute and the Institute of Environmental Management and Assessment publication entitled Guidelines for Landscape and Visual Impact Assessment (2013).

13.1.1 Statement of Authority

This Landscape and Visual Impact Assessment report was prepared by Richard Barker, Divisional Director of Macro Works Ltd; a landscape consultancy firm specialising in LVIA along with associated visibility mapping and photomontage graphics. Relevant experience includes LVIA work for a vast range of infrastructural, industrial and commercial projects since 1999 including more the 200 onshore wind farms and associated grid infrastructure.

13.1.2 Description of the Proposed Development

The proposed development consists of a 110kV substation, temporary construction compound, underground grid route and 2 end masts which will break into an existing overhead line (OHL), all to be located within the townlands of Strogue and Clonmore, Co. Tipperary.

13.1.3 Assessment Methodology

Production of this Landscape and Visual Impact Assessment involved:

- A desktop study to establish an appropriate study area, relevant landscape and visual designations in the Tipperary County Development Plan as well as other sensitive visual receptors. This stage culminates in the selection of a set of potential viewpoints from which to study the effects of the proposal;
- Fieldwork to establish the landscape character of the receiving environment and to confirm and refine the set of viewpoints to be used for the visual assessment stage;
- Assessment of the significance of the landscape impact of the development as a function of landscape sensitivity weighed against the magnitude of the landscape impact; and
- Assessment of the significance of the visual impact of the development. This aspect of the assessment is supported by photomontages prepared in respect of the selected viewpoints.

13.1.3.1 Landscape Impact Assessment Criteria

When assessing the potential impacts on the landscape resulting from a proposed development, the following criteria are considered:

- Landscape character, value and sensitivity;
- Magnitude of likely impacts; and
- Significance of landscape effects

The sensitivity of the landscape to change is the degree to which a particular landscape receptor (Landscape Character Area (LCA) or feature) can accommodate changes or new elements without unacceptable detrimental effects to its essential characteristics. Landscape Value and Sensitivity is classified using the following criteria set out in **Table 13-1.**

Table 13-1 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.

The magnitude of a predicted landscape impact is a product of the scale, extent or degree of change that is likely to be experienced as a result of the proposed development. The magnitude takes into account whether there is a direct physical impact resulting from the loss of landscape components and/or a change that extends beyond the Site boundary that may have an effect on the landscape character of the area. **Table 13-2** refers.

Table 13-2 Magnitude of Landscape Impacts

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

The significance of a landscape impact is based on a balance between the sensitivity of the landscape receptor and the magnitude of the impact. The significance of landscape impacts is arrived at using the following matrix set out in **Table 13-3**. This matrix is translated to the EPA impact assessment classifications of significance, as outlined in **Table 1-4** below.

Table 13-3 Impact Significance Matrix

	Sensitivity of Receptor				
Scale/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

Note: The significance matrix provides an indicative framework from which the significance of impact is derived. The significance judgement is ultimately determined by the assessor using professional judgement. Due to nuances within the constituent sensitivity and magnitude judgements, this may be up to one category higher or lower than indicated by the matrix. Judgements indicated in orange are considered to be 'significant impacts' in EIA terms.

Table 13-4: EPA Impact Assessment Significance Classification for Landscape Effect

Significance Matrix	EPA	
Profound	Profound	An effect which obliterates sensitive characteristics.
Profound-Substantial	Very Significant	An effect which, by its character, magnitude, duration or intensity, significantly alters most of a sensitive aspect of the environment.
Substantial	Significant	An effect which, by its character, magnitude, duration or intensity, alters a sensitive aspect of the environment
Moderate-Moderate Slight	Moderate	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
Slight	Slight	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities
Slight-Imperceptible	Not Significant	An effect which causes noticeable changes in the character of the environment but without significant consequences
Imperceptible	Imperceptible	An effect capable of measurement but without significant consequences

13.1.3.2 Visual Impact Assessment Criteria

As with the landscape impact, the visual impact of the Proposed Grid Connection will be assessed as a function of sensitivity versus magnitude. In this instance, the sensitivity of the visual receptor, weighed against the magnitude of the visual effect.

13.1.3.3 Sensitivity of Visual Receptors

Unlike landscape sensitivity, the sensitivity of visual receptors has an anthropocentric basis. It considers factors such as the perceived quality and values associated with the view, the landscape context of the viewer, the likely activity they are engaged in and whether this heightens their awareness of the surrounding landscape. A list of the factors considered by the assessor in estimating the level of sensitivity for a particular visual receptor is outlined below and used in **Table 1-7** below to establish visual receptor sensitivity at each Viewshed Reference Point (VRP):

1. **Susceptibility of Receptors** - In accordance with the Institute of Environmental Management and Assessment ("IEMA") Guidelines for Landscape and Visual Assessment (3rd edition 2013) visual receptors most susceptible to changes in views and visual amenity are:
    - "*Residents at home;*
    - *People, whether residents or visitors, who are engaged in outdoor recreation, including use of public rights of way, whose attention or interest is likely to be focussed on the landscape and on particular views;*
    - *Visitors to heritage assets, or to other attractions, where views of the surroundings are an important contributor to the experience;*
    - *Communities where views contribute to the landscape setting enjoyed by residents in the area; and*
    - *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; and*
    - *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*".

    Values typically associated with views

2. **Recognised scenic value of the view** (County Development Plan designations, guidebooks, touring maps, postcards etc). These represent a consensus in terms of which scenic views

and routes within an area are strongly valued by the population because in the case of County Developments Plans, for example, a public consultation process is required;

3. **Views from within highly sensitive landscape areas**. Again, highly sensitive landscape designations are usually part of a county's Landscape Character Assessment, which is then incorporated within the County Development Plan and is therefore subject to the public consultation process. Viewers within such areas are likely to be highly attuned to the landscape around them;

4. **Primary views from dwellings**. A proposed development might be seen from anywhere within a particular residential property with varying degrees of sensitivity. Therefore, this category is reserved for those instances in which the design of dwellings or housing estates, has been influenced by the desire to take in a particular view. This might involve the use of a slope or the specific orientation of a house and/or its internal social rooms and exterior spaces;

5. **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 county or regional scale;

6. **Connection with the landscape**. This considers whether or not receptors are likely to be highly attuned to views of the landscape i.e. commuters hurriedly driving on busy national route versus hill walkers directly engaged with the landscape enjoying changing sequential views over it;

7. **Provision of elevated panoramic views**. This relates to the extent of the view on offer and the tendency for receptors to become more attuned to the surrounding landscape at locations that afford broad vistas;

8. **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;

9. **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;

10. **Presence of striking or noteworthy features.** A view might be strongly valued because it contains a distinctive and memorable landscape feature such as a promontory headland, lough or castle;

11. **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;

12. **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;

13. **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;

14. **Sense of place**. This considers whether there is special sense of wholeness and harmony at the viewing location; and

15. **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. No relative importance is inferred by the order of listing in the **Table 13-6**. Overall sensitivity may be a result of a number of these factors or, alternatively, a strong association with one or two in particular.

13.1.3.4 Visual Impact Magnitude

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

Visual presence is a somewhat quantitative measure relating to how noticeable or visually dominant the proposal is within a particular view. This is based on a number of aspects, aside from scale in relation to

distance. Some of these aspects include the extent and complexity of the view, the degree of visual screening as well as the existing contextual movement experienced. The backdrop against which the development is presented and its relationship with other focal points or prominent features within the view is also considered. Visual presence is essentially a measure of the relative visual dominance of the proposal within the available vista and is often, though not always, expressed as one of the following terms:

- Minimal;
- Sub-dominant;
- Co-dominant;
- Dominant;
- Highly dominant.

Given that the Proposed Grid Connection does not represent significant bulk, visual impacts will result almost entirely from visual 'intrusion' rather than visual 'obstruction' (the blocking of a view). The magnitude of visual impacts is classified in Table 13-5.

Table 13-5 Magnitude of Visual Impact

Criteria	Description
Very High	The proposal intrudes into a large proportion or critical part of the available vista and is without question the most noticeable element. A high degree of visual clutter or disharmony is also generated, strongly reducing the visual amenity of the scene
High	The proposal intrudes into a significant proportion or important part of the available vista and is one of the most noticeable elements. A considerable degree of visual clutter or disharmony is also likely to be generated, appreciably reducing the visual amenity of the scene
Medium	The proposal represents a moderate intrusion into the available vista, is a readily noticeable element and/or it may generate a degree of visual clutter or disharmony, thereby reducing the visual amenity of the scene. Alternatively, it may represent a balance of higher and lower order estimates in relation to visual presence and visual amenity
Low	The proposal intrudes to a minor extent into the available vista and may not be noticed by a casual observer and/or the proposal would not have a marked effect on the visual amenity of the scene
Negligible	The proposal would be barely discernible within the available vista and/or it would not detract from, and may even enhance, the visual amenity of the scene

13.1.3.5 Visual Impact Significance

13.1.4 As stated above, the significance of visual impacts is a function of visual receptor sensitivity and visual impact magnitude. This relationship is expressed in the same significance matrix

and applies the same EPA definitions of significance as used earlier in respect of landscape impacts (Table 13-3 refers).

13.1.5 Extent of Study Area

13.1.6 From similar studies, it is anticipated that the Proposed Grid Connection is likely to be difficult to discern beyond approximately 2km and is not likely to give rise to significant landscape or visual impacts beyond this distance. Thus, a 2km radius study area is used in this instance which is generated from a combination of the proposed substation site and the end mast site, these being the two primary above ground visible elements.

Figure 13.1: 2km extent of the LVIA Study Area

13.1.7 Landscape and Visual Policy Context and Designations

13.1.7.1 Tipperary County Development Plan 2022-2028

A landscape character assessment is incorporated within the current Tipperary County Development Plan, which divides the county into broad Landscape Archetypes then Landscape Character Types and finally 23 geographically specific Landscape Character Areas (LCA). As with the Consented Wind Farm, the Proposed Grid Connection is contained in 'The Plains' Landscape Archetype, the 'A1 Lowland Pasture and Arable' Landscape Character Type' and then LCA 5 – Templemore Plains'. This is considered to be a robust landscape classification based on the landscape policy objectives of the Tipperary County Development Plan. Indeed LCA 5 – Templemore Plains is attributed a landscape sensitivity classification of Class 1 out of a scale that extends as high as Class 5. In terms of LCA compatibility with particular development types, Table 6.2 of the Tipperary Landscape Character Assessment attributes a 'Medium' compatibility for both 'Industrial Projects' and 'Major Powerlines' within LCA 5. This is the strongest level of compatibility of any of the rural Landscape Character Areas.

The Site and Study Area are not contained within either a Primary or Secondary Amenity Area and there are no scenic route / view designations within the study area. There is one designated scenic route located on the N62 a short distance to the north of the study area but at distances beyond 2.5km to the proposed substation and 3.8km to the proposed end masts it has no relevance to this assessment.

13.2 EXISTING ENVIRONMENT

The landscape baseline represents the existing landscape context and is the scenario against which any changes to the landscape brought about by the Proposed Grid Connection will be assessed. It consists of pastoral farmland divided into geometric fields with strong hedgerow boundaries. There is dispersed rural settlement throughout, but with a stronger concentration in the northern and southern quarters and distinctly sparse concentration to the west where the Consented Wind Farm is located. A portion of cutaway peatland is contained on the outer south-eastern quadrant of the study area which is surrounded by scrub and conifer plantations.

A distinct component of the study area is the parallel transport corridors of the R433 regional road and a section of the Dublin to Cork Railway line that bisect the study area in a northeast – southwest direction. The proposed end masts intercept the Ikerrin to Thurles 110kV OHL approx. 50m north of the railway line and the underground cable route tracks the northern side of the railway corridor until its connection with the L7039 local road, which it follows to the proposed 110kV substation site. It is from this road and the dwellings that line it in the immediate vicinity of the substation site that the highest potential exists for visibility of the proposed substation.

13.2.1 Identification of Viewshed Reference Points as a Basis for Assessment

VRPs are the locations used to study the visual impacts of a proposal in detail. 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 (DSR);
- 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 13-6 and Figure 13.2 below.

Table 13-6 Outline Description of Selected Viewshed Reference Points (VRPs)

VRP No.	*Location*	*Representative Of*	*Direction of view*
VP1	Bridge at Ballysorrell	LCV, MR	SW
VP2	R433 at Strogue	LCV, MR	NW
VP3	Local road at Clonmore	LCV	W

Figure 13.2 Viewpoint location map

13.3 IMPACT ASSESSMENT

13.3.1 LANDSCAPE IMPACT ASSESSMENT

13.3.1.1 Landscape Value and Sensitivity

In the LVIA for the Consented Wind Farm the Landscape Specialist classified the receiving landscape of the site as being of Low sensitivity for the following reasons; *"The Site is predominantly located within a modified working landscape with minimal aesthetic qualities attributable to the Site itself. There are no scenic amenity or landscape designations pertaining to the Site, and views from the nearby designated scenic route are directed away from the Proposed Project. There is no recreational value to the Site considering that it is privately owned agricultural land…"*. It is considered that this is a reasonable assessment based on sound reasoning and therefore the same Low landscape sensitivity assessment is adopted for the proposed (and strongly related) Grid Connection application.

13.3.1.2 Magnitude of Landscape Effects

In terms of physical landscape effects, the end masts will result in very minor disturbance of already modified grassland and the trenching for the underground cable route will result in temporary, transient and very localised effects during construction only. The main physical effect will be the permanent stripping and levelling of the substation site and the temporary stripping of the construction compound, which will be reinstated after construction. The substation site is relatively flat so there will be little excavation required for site levelling and the land cover stripping will relate to modified agricultural grassland. The site entrance already exists as a publicly accessible laneway (L-70391) and there will be no loss of hedgerow vegetation to accommodate the substation or end masts. There will be small sections of hedgerow lost to the access tracks requited for the proposed end masts from the L7038 where the track runs perpendicular through them.

In terms of effects on landscape character, there will be intensive activity at the substation site during construction relating to the movement of workers and machinery, temporary stockpiling of stripped material and construction materials. This will be carried out in tandem with the construction of the Consented Wind Farm (with which it was already assessed) and will be less noticeable in its own right in that broader construction context.

Once operational, the end masts will represent the intensification of pylons to the north of the railway line where the existing 110kV OHL passes over it. This will form a modest node of pylons in this rural location, but the OHL is an established feature, and the new pylons are not an ambiguous feature in this productive rural context.

The proposed 110kV substation will be an intensive and utilitarian electrical facility that will impart an industrial character on the immediate rural surrounds. However, it will also present in-combination with the Consented Wind Farm as a related ancillary feature of more modest proportions than the surrounding turbines. A proposed perimeter grassed berm will aid in the assimilation of the substation within the surrounding context while also screening the ground level movement and clutter of electrical components. Given the containment of the substation site, the influence on landscape character will be substantially contained to a very localised context of around 500-1000m.

Overall, the magnitude of landscape impact associated with the Proposed Grid Connection is deemed to be no greater than Medium and of a Negative quality, but within a localised geographical extent during both the construction and operational phases. When combined with the Low sensitivity of the receiving landscape, the significance of effect is deemed to be no greater than Slight. This level of effect is considered to be **Not Significant**.

13.3.2 Visual Impact Assessment

VISUAL IMPACT MAGNITUDE

This assessment of visual impacts has been undertaken using each of the selected viewpoints aided by photomontages of the Proposed Grid Connection (Appendix 13-1). 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. Wireframe view (incl. cumulative)
3. Montage view

VP NO.	*EXISTING VIEW / IMMINENT VIEW*	*VP SENSITIVITY*	*MAGNITUDE OF VISUAL EFFECT (PRE & POST MITIGATION)*	*PRE MITIGATION SIGNIFICANCE / QUALITY / DURATION OF EFFECT*	*POST MITIGATION SIGNIFICANCE / QUALITY / DURATION OF EFFECT*
VP1	**Bridge at Ballysorrell** This is a slightly elevated view from a local road railway overpass looking west towards the Devils Bit Mountains. The foreground consists of the narrow straight railway corridor flanked by agricultural farmland with a strong degree of enclosure by dense hedgerows. Of relevance is the 110kV OHL which crosses the middle ground of the view as twin wooden poles and a lattice steel pylon adjacent to the railway line. This is a subtle feature of the overall vista. The Consented Wind Farm, once constructed, will rise into view from the middle ground context and become the most distinctive built feature contained within the view.	**Medium-low**	Only the proposed twin end-mast pylons that intercept the existing 110kV line will be visible from here as the proposed substation is fully screened by intervening vegetation. They rise just to the right of the existing pylon that abuts the railway line and together they form a cluster of utilitarian structures. This cluster might draw the eye to a greater degree if not for the permitted turbines which will be a much more prominent feature of the view further to the west (right). Instead, the proposed end-masts will be a barely discernible feature of the view with the upper sections visually receding against a backdrop of sky and the lower sections marginally more apparent, but discreet, against a backdrop of vegetation. Overall, the magnitude of visual impact is deemed to be Low-negligible and without a material contribution to cumulative effects in conjunction with the Consented Wind Farm.	Mitigation is not necessary or likely to be effective	**Slight-imperceptible/** **Negative-Neutral/** **Permanent**
VP2	**R433 at Strogue** a) This is typical lowland rural view from a crossroads between the R433 and a local road and short distance northwest of the	**Medium-low**	a) Although the cable route for the Proposed Grid Connection runs through this intersection, it will be beneath the road resulting in rolling construction stage visual effects, typical of any	Mitigation is not necessary or likely to be effective	**Imperceptible/** **Negative-Neutral/**

VP NO.	*EXISTING VIEW / IMMINENT VIEW*	*VP SENSITIVITY*	*MAGNITUDE OF VISUAL EFFECT (PRE & POST MITIGATION)*	*PRE MITIGATION SIGNIFICANCE / QUALITY / DURATION OF EFFECT*	*POST MITIGATION SIGNIFICANCE / QUALITY / DURATION OF EFFECT*
	railway line. The northwesterly view towards the substation site is relatively contained by layers of hedgerow vegetation, but with hills rising in the middle distance. b) The northeasterly view towards the proposed end masts has a similar degree of containment.		roadworks. The proposed substation to the northwest will not be visible from here due to intervening vegetation screening. b) To the northeast, the proposed end masts will not be visible due to intervening screening. The proposed visual impacts are therefore considered to be Negligible. There will be no influence in terms of cumulative effects with the Consented Wind Farm.		**Permanent**
VP3	**Local road (L-7039) at Clonmore** This is an enclosed gateway view across an agricultural field with the Devils Bit Mountains in the background. The field is contained by dense hedgerows on all sides.	**Medium-low**	The proposed substation will be openly visible from here within the foreground field and would be the most distinctive feature of the enclosed view, if not for the Consented Wind Farm that will be constructed at the same time and rises just beyond. The substation is a utilitarian electrical facility that imparts an industrial character and clutter on the rural view, but without being the defining element. It will increase the intensity and diversity of built development in view and will draw from rural visual amenity, albeit in the context of fleeting views for passing road users. Prior to the establishment of grassed berm around the perimeter of the substation site, the magnitude of visual	**Moderate/** **Negative/** **Short-term**	**Moderate-slight/** **Negative/** **Permanent**

VP NO.	*EXISTING VIEW / IMMINENT VIEW*	*VP SENSITIVITY*	*MAGNITUDE OF VISUAL EFFECT (PRE & POST MITIGATION)*	*PRE MITIGATION SIGNIFICANCE / QUALITY / DURATION OF EFFECT*	*POST MITIGATION SIGNIFICANCE / QUALITY / DURATION OF EFFECT*
			impact is deemed to be Medium and of a Negative quality, but with a very restricted geographical extent. Once the grassed berm has been constructed, the lower level components and site activity will be screened from view and the substation will appear more anchored and assimilated within the view. The magnitude of impact therefore reduces to Medium-low. In terms of cumulative impact with the Consented Wind Farm, there will be a strong sense of correlation between the two developments and the wind turbines will be the more prominent feature somewhat drawing attention from the substation. The contribution of the proposed substation to cumulative impact is Low and the combined effect is not deemed to be more significant than the standalone view of the Consented Wind Farm.		

13.4 CUMULATIVE IMPACT

The potential for impact between the Proposed Grid Connection with the Consented Wind Farm, other proposed or consented wind projects within the surrounding landscape, and other relevant non-wind projects (existing, permitted or proposed) has been carried out with the purpose of identifying what influence the Proposed Grid Connection will have on landscape character and visual amenity, as well as the interactions between these factors, when considered cumulatively and in combination with relevant existing, permitted or proposed projects and plans in the vicinity of the Site. Please see Chapter 15 for Interactions and Cumulative Effects for the detailed cumulative assessment methodology. Please refer to Appendix 15-1 for a comprehensive listing of the considered cumulative and in combination with relevant existing, permitted or proposed projects and plans in the vicinity of the Site.

The main potential for cumulative impact to occur is in relation to the Consented Wind Farm that the Proposed Grid Connection will serve. The proposed substation reads clearly as an ancillary and subordinate development of the Consented Wind Farm. However, there is less of an obvious relationship between the Consented Wind Farm and the proposed end masts, which are further away to the southeast.

Consideration of the cumulative visual impact of the Consented Wind Farm and the Proposed Grid Connection is provided in the visual impact assessment table in section 13.5.2. Other than for VP3 at the gateway to the field that will host the proposed substation, the visual impact of the Proposed Grid Connection is so minor than it will make no material contribution to cumulative effects in combination with the Consented Wind Farm. At VP3 the proposed substation in combination with the Consented Wind Farm will contribute to the intensity and diversity of built development within view. However, the proposed substation will be subordinate to the Consented Wind Farm in terms of visual presence and is considered to make a Low contribution to the cumulative effect. This particular cumulative effect is very restricted to the view across the field that will host the proposed substation from the adjacent local road. It is not considered to generate a significant cumulative effect.

13.5 CONCLUSION

The Proposed Grid Connection is considered to have only a modest physical impact on the landform and land cover of the site. It is clearly an ancillary development to the Consented Wind Farm that it will not exist in isolation to, other than after decommissioning of the turbines. The Proposed Grid Connection will add to the intensity and diversity of utilitarian built development within this rural landscape and within the immediate context of the substation element the magnitude of impact is deemed to be Medium, contributing to a Moderate landscape effect, which diminishes quickly with distance and broader context.

Visual impacts were assessed at three representative viewpoint locations, representing various viewing distances, and angles in which visual receptors may obtain views of one or both of the end masts and substation. Only the tops of the end masts are visible at distance from VP1 and neither of the permanent structures will be visible from VP2 resulting in Slight-imperceptible and Imperceptible effects respectively. At VP3, which looks into the field that hosts the substation, the close view of the facility is deemed to result in a Moderate pre-mitigation visual effect and a Moderate-slight effect once the grassed berm has been constructed. In the context of the cumulative Consented Wind Farm the Proposed Grid Connection becomes less noticeable in its own right and is assimilated as a modest scale ancillary development to the Consented Wind Farm.

1.5.2 Overall Significance of Impact

Based on the landscape and visual impact judgements provided throughout this LVIA, the Proposed Grid Connection is not considered to give rise to any significant landscape effects, visual effects or cumulative effects in conjunction with the Consented Wind Farm and another other relevant plan or projects as listed in Appendix 15-1.