

# ENVIRONMENTAL IMPACT ASSESSMENT REPORT (EIAR) FOR THE PROPOSED COOM GREEN ENERGY PARK GRID CONNECTION

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## VOLUME 2 – MAIN EIAR

### CHAPTER 14 - LANDSCAPE AND VISUAL

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**Prepared for:**

Coom Green Energy Park Ltd.



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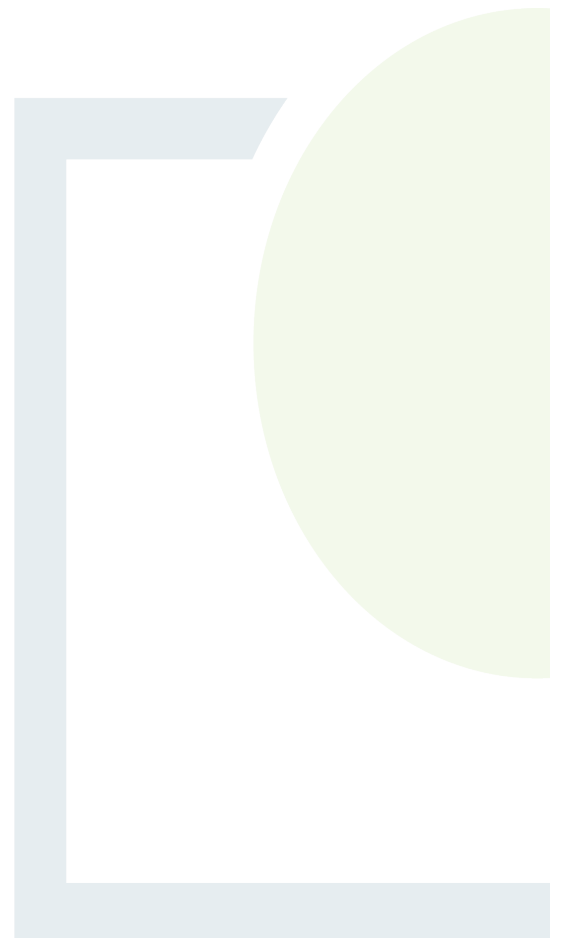
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## 14. LANDSCAPE AND VISUAL IMPACT

### 14.1 Introduction

This chapter examines the potential effects of the proposed Coom Green Energy Park (CGEP) grid connection on the landscape and visual amenity of the receiving environment. The site is located in County Cork and is associated with the permitted CGEP development (ACP Ref: 308885-20) which consists of a 22-turbine wind farm, 110 kV substation, 20 no. battery energy storage containers and all associated ancillary works. Two 110 kV substations were permitted as part of the CGEP, one in the townland of Mullenaboree and one in the townland of Lackendarragh North. However, only the substation located in Lackendarragh North will be constructed. The permitted 110 kV substation at Mullenaboree shall not be constructed if the Proposed Development receives planning consent, as it will no longer be required.

A description of the Proposed Development is provided in Chapter 2 - Development Description. Common acronyms used throughout this EIAR can be found in the Technical Appendix 1.2, Volume 3.

The Proposed Development assessed in this EIAR comprises the following elements:

- A 110 kV Underground Cable (UGC) underground Cable (UGC) Grid Connection Route from the permitted onsite substation at Lackendarragh to the existing Barrymore 110 kV substation located near Rathcormac, Co. Cork (also referred to herein as the '110 kV GCR');
- A 33kV Underground Cable (UGC) UGC Collector Network Route between the western and eastern arrays of the permitted Coom Green Energy Park (CGEP) development (also referred to herein as the '33 kV CNR');
- A 110kV onsite substation at Lackendarragh, in line with the latest Eirgrid functional specifications (also referred to herein as '110 kV Substation').

This Landscape and Visual Impact Assessment (LVIA) describes the landscape context of the Proposed Development 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, in accordance with relevant guidance outlined in section 14.2.2:

Landscape Impact Assessment (LIA) relates to changes in the physical landscape brought about by the Proposed Development, which may alter its character, and how this is experienced. This requires a detailed analysis of the individual elements and characteristics of a landscape that go together to make up the overall landscape character of that area. By understanding the aspects that contribute to landscape character, it is possible to make judgements in relation to its quality (integrity) and to identify key sensitivities. This, in turn, provides a measure of the ability of the landscape in question to accommodate the type and scale of change associated with the Proposed Development without causing unacceptable adverse changes to its character.

Visual Impact Assessment (VIA) relates to assessing effects on specific views and 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).



Cumulative landscape and visual impact assessment is concerned with additional changes to the landscape or visual amenity caused by the Proposed Development in conjunction with other developments (associated or separate from it).

#### 14.1.1 Statement of Authority

The LVIA has been prepared by Richard Barker, MLA MILI, Divisional Director in Macro Works, who is a Landscape Architect and Member of the Irish Landscape Institute (MILI). Richard has extensive experience which includes LVIA's for over 150 wind farms and numerous other developments in Ireland including the permitted CGEP development. Additionally, Richard has considerable training and competency with oral hearings and providing expert witness testimony.

Macro Works is a specialist LVIA company with over 20 years of experience in the appraisal of effects from a variety of energy, infrastructure and commercial developments. Macro Works' relevant experience includes LVIA work on over 200 onshore wind farm projects throughout Ireland, including numerous Strategic Infrastructure Development (SID) wind farms. Macro Works and its senior staff members are affiliated with the Irish Landscape Institute.

### 14.2 Assessment Methodology

Production of this LVIA involved baseline work in the form of desktop studies and fieldwork comprising professional evaluation by qualified and experienced Landscape Architects included at Table 1.5.

#### 14.2.1 Study Area

The main permanent and above ground component of proposed development is the 110 kV Substation at Lackendarragh which will replace the consented substation assessed in the 2020 EIAR (ACP Ref: 308885-20). Based on the potential for significant effects to occur as a result of the substation a 2 km radius LVIA study area is applied from the perimeter of the substation site. For the 110 kV GCR and 33 kV CNR, which will consist of underground cables the LVIA study area is confined to a buffer of 200 m either side of the cable route which is predominantly beneath the surface of roads and will only give rise to any material landscape and visual effects during the construction phase.

#### 14.2.2 Landscape and Visual Assessment

The process adopted regarding the identification of landscape and visual effects (adopting the assessment criteria) is summarised as follows:

- Consideration of the receiving landscape with regard to overall landscape character as well as the salient features of the Study Area including landform, drainage, vegetation, land use and landscape designations.
- Consideration of the visual environment including receptor locations such as centres of population and houses, transport routes, public amenities and facilities and designated and recognised views of scenic value.
- Consideration of relevant design guidance and planning policies.
- Consideration of potentially significant construction, operational, and decommissioning phase effects and the mitigation measures that could be employed to reduce such effects.
- Assessment of the level (significance) of residual landscape effects.



- Assessment of the level (significance) of residual visual effects.
- Assessment of cumulative landscape and visual effects in combination with other relevant surrounding developments that are either existing, permitted, or subject to a valid planning application.

### 14.2.3 Relevant Policy and Guidance

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

- European Union (2017) Guidance on the preparation of the EIA Report (Directive 2011/92/EU as amended by 2014/52/EU);
- Environmental Protection Agency (EPA) publication ‘Guidelines on the Information to be contained in Environmental Impact Statements (2022)
- Guidelines for Landscape and Visual Impact Assessment (GLVIA3), Landscape Institute and the Institute of Environmental Management and Assessment (IEMA), 3rd Edition (2013).

### 14.2.4 Assessment Criteria for Landscape Impacts

The classification system used by Macro Works to determine the significance of landscape and visual impacts is based on the GLVIA3 -Guidelines for Landscape and Visual Impact Assessment (IEMA, 2013). When assessing the potential impacts on the landscape resulting from a development of this nature, 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 features without unacceptable detrimental effects to its essential characteristics. Landscape Value and Sensitivity is classified using the following criteria outlined below:

**Table 14-1: 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 a non-designated local level where there is evidence of local value and use.



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

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

**Table 14-2: 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:

**Table 14-3: Landscape Impact 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

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

#### 14.2.5 Assessment Criteria for Visual Impacts

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

#### 14.2.6 Visual Sensitivity

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.

Visual sensitivity is a two-sided analysis of receptor susceptibility (people or groups of people) versus the value of the view on offer at a particular location.

To assess the susceptibility of viewers, and the amenity value of views, the assessors used a range of criteria and provided a four-point weighting scale to indicate how strongly the viewer/view is associated with each of the criteria. Susceptibility criteria are extracted directly from the GLVIA3, whilst the value criteria relate to various aspects of a view that might typically be related to high amenity including, but not limited to, scenic designations.



#### 14.2.6.1 Susceptibility of receptor group to changes in view

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

- 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 focused 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 focused on their work or activity, not their surroundings and where the setting is not important to the quality of working life.”

#### 14.2.6.2 Value Associated with the View

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



- Degree of perceived naturalness. Where a view is valued for the sense of naturalness of the surrounding landscape it is likely to be highly sensitive to visual intrusion by obvious human interventions.
- Presence of striking or noteworthy features. A view might be strongly valued because it contains a distinctive and memorable landscape feature such as a promontory headland, lough or castle.
- Historical, cultural or spiritual value. Such attributes may be evident or sensed at certain viewing locations that attract visitors for the purposes of contemplation or reflection heightening the sense of their surroundings.
- Rarity or uniqueness of the view. This might include the noteworthy representativeness of a certain landscape type and considers whether other similar views might be afforded in the local or the national context.
- Integrity of the landscape character in view. This criterion considers the condition and intactness of the landscape in view and whether the landscape pattern is a regular one of few strongly related components or an irregular one containing a variety of disparate components.
- Sense of place. This criterion considers whether there is special sense of wholeness and harmony at the viewing location; and
- Sense of awe. This criterion considers whether the view inspires an overwhelming sense of scale or the power of nature.

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

#### 14.2.7 Magnitude of Visual Effects

The magnitude of visual effects is determined on the basis of (i) the visual presence of the proposed development, and (ii) 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 beyond simply scale in relation to distance. Some of these include the extent of the view as well as its complexity and the degree of existing contextual movement experienced such as might occur where turbines are viewed as part of / beyond a busy street scene. The backdrop against which the project is presented and its relationship with other focal points or prominent features within the view is also considered. Visual presence is essentially a measure of the relative visual dominance of the proposal within the available vista and is expressed as such i.e. minimal, sub-dominant, co-dominant, dominant, highly dominant.



**Table 14-4: Magnitude of Visual Effects**

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.

#### 14.2.8 Visual Impact Significance

The significance of visual impacts is a function of visual receptor sensitivity and visual impact magnitude. This relationship is expressed in the same significance metric included for Landscape Impact Significance in Table 14-3.

#### 14.2.9 Quality and Timescale in Effects

In addition to assessing the significance of landscape/townscape effects and visual effects, EPA Guidance (2022) requires that the quality of the effects is also determined.

This could be negative/adverse, neutral, or positive/beneficial.

- Positive Effects: A change which improves the quality of the environment.
- Neutral and/or balanced Effects: No effects, or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
- Negative/adverse Effects: A change that reduces the quality of the environment



Landscape and Visual effects are also categorised according to their duration:

- Temporary – Lasting for one year or less;
- Short Term – Lasting one to seven years;
- Medium Term – Lasting seven to fifteen years;
- Long Term – Lasting fifteen years to sixty years; and
- Permanent – Lasting over sixty years.

## 14.3 Receiving Environment

### 14.3.1 Landscape and Visual Baseline

The landscape and visual baseline remains substantially unchanged since the landscape and visual assessment that was undertaken in respect of the permitted CGEP development (ACP Ref: 308885-20). There has been some scheduled forest felling and replanting within the wider context of the proposed development, as would be expected in a productive rural landscape comprising of rotational plantation forestry and rolling farmland. Otherwise, the landscape and visual baseline can be considered essentially the same in terms of composition, character and relevant receptors.

### 14.3.2 Landscape Policy Context and Designations

#### 14.3.2.1 *Cork County Development Plan 2022-2028*

The current Cork County Development Plan (2022-2028) has been updated from the earlier iteration (2016 - 2022) that was relevant to the LVIA that was undertaken in respect of the permitted CGEP development. However, in respect of the relevant Cork Landscape Character Assessment, the provision of sensitive landscape designations in the form of 'High Value Landscapes' (HVL) and the schedule of designated scenic routes, there has not been any material changes brought forward into the latest CDP iteration. Consequently, the landscape and visual policy environment can be considered materially unchanged from that which existed for the original CGEP assessment.

## 14.4 Assessment of Potential Effects

It should be noted that the assessment of effects hereunder is undertaken relative to a baseline of the permitted development being constructed rather than against the current baseline of no development. This approach is taken because the principle of the CGEP development is not at issue and could be constructed in accordance with the current permission. The grid connection application is irrelevant unless undertaken in the context of the permitted development that it will serve.

Construction and operational phase effects are assessed; however, decommissioning phase effects are screened out as the proposed 110 kV grid infrastructure (110 kV GCR and 110 kV Substation) will form permanent components of the national grid and not subject to decommissioning. There is no above ground infrastructure proposed as part of the 33 kV CNR and therefore will not create any potential landscape and visual effects.



#### 14.4.1 Landscape Impacts - Construction Phase

For the two cable route components of the proposed development (110kV GCR and 33kV CNR) there will be temporary physical land cover disturbance impacts in the form of trenching. This will occur briefly within open ground to access the road network and then chiefly within the road bed of the road network that will convey the cables to the proposed 110 kV Substation and then on to the existing Barrymore 110kV substation near Fermoy. Such effects will be barely noticeable within the context of the under-construction wind farm and in the road sections linking from the proposed 110kV Substation to the Barrymore substation the construction phase effects will read as typical road work. These effects will be small scale, temporary and transient along the road network.

For the 110kV GCR there will be two instances where Horizontal Directional Drilling (HDD) will be required to take the cable under the M8 motorway and then under a watercourse near the Barrymore substation. This will involve a launch pit and a receptor pit at either end of the HDD section, which will require deeper excavation and will be the focus of worker and machinery activity for a longer period than for other sections of surface trenching.

For the 110 kV Substation, there will be a slightly reduced area of regrading required to create a flat platform for the facility, and the orientation of the platform will be modified slightly to accommodate the alternative design and orientation of the substation now proposed. The overall, size of the substation compound will be reduced from that permitted as part of the CGEP development, which is 178m X 153m, down to 145m X 115m. The impact on landscape character will not be materially different as a result of the revised substation design.

The potential removal of the permitted Mullenaboree substation from the development will avoid construction stage vegetation clearance and landform modification at that location, which is a positive outcome for the landscape impact of the project.

For the reasons outlined above, the construction phase landscape effects of the proposed development will be Low-negligible / Negative / Temporary for the cable routes; Negligible / Neutral / Permanent for the 110 kV Substation; and, Low / Positive / Permanent in relation to the permitted Mullenaboree substation removal. Based on the general Medium-low landscape sensitivity applied to the receiving landscape in the LVIA for the permitted CGEP development the significance of construction phase landscape effects is expressed in Table 14-5 Below.

**Table 14-5: Significance of Construction Phase Landscape Effects**

Project component	Magnitude of effect	Landscape Sensitivity	Significance / Quality / Duration of Effect
110kV GCR and 33kV CNR	Low-negligible	Medium-low	Slight-imperceptible/ Negative / Temporary
110 kV Substation	Negligible	Medium-low	Imperceptible/ Neutral/ Permanent
Mullenaboree substation removal	Low	Medium-low	Slight/ Positive/ Permanent



#### 14.4.2 Landscape Impacts - Operational Phase

There will be no operational phase landscape effects relating to the cable routes as they will be buried below ground / road and with the surface above fully reinstated.

Although the 110 kV Substation will be of a different and reoriented design, it has a similar macro appearance to the untrained eye and will occupy a slightly smaller compound in the same location as the permitted substation. Consequently, the operational phase impact on landscape character is not deemed to be materially different to that of the permitted substation.

The removal of the permitted Mullenaboree substation from the development will avoid any operational phases landscape effects relating to it and although these were not significant, the effect will be positive.

On the basis of the assessment outlined above, the significance of operational phase landscape effects is summarised in Table 14-6 Below.

**Table 14-6: Significance of Operational Phase Landscape Effects**

Project component	Magnitude of effect	Landscape Sensitivity	Significance / Quality / Duration of Effect
110kV GCR and 33kV CNR	Negligible	Medium-low	Imperceptible/ Neutral/ Permanent
110 kV Substation	Negligible	Medium-low	Imperceptible/ Neutral/ Permanent
Mullenaboree substation removal	Low	Medium-low	Slight/ Positive/ Permanent

#### 14.4.3 Visual Impacts - Construction Phase

For the two cable route components of the proposed development (110kV GCR and 33kV CNR) there will be temporary visual impacts from construction activities involving workers, machinery and temporary stockpiling of excavated materials and construction materials. Such effects will only be noticeable to road users and property owners in close proximity (adjacent) to the road network that is being utilised for the underground cable. These effects will be small scale, temporary and transient along the road network and will appear similar to any form of road upgrade works. There will be slightly greater intensity and duration of visual effect in close proximity to the two instances where Horizontal Directional Drilling (HDD) will be required to take the cable under the M8 motorway and then under a watercourse near the Barrymore substation.

For the 110 kV Substation, construction phase activities will involve workers, vehicles, HGV movements, machinery and temporary stockpiling of excavated materials and construction materials as well as views of bare earth. These will be at a fixed location and longer duration effects than those associated with the cable route but will be on the 12-month threshold between Temporary and Short-term duration effects (in accordance with EPA definitions).



The potential removal of the permitted Mullenaboree substation from the development will avoid construction stage vegetation clearance and landform modification at that location, which is a positive outcome for the visual impacts of the project.

In accordance with the reasons outlined above, the construction phase visual effects of the proposed development are expressed in Table 14-7 Below.

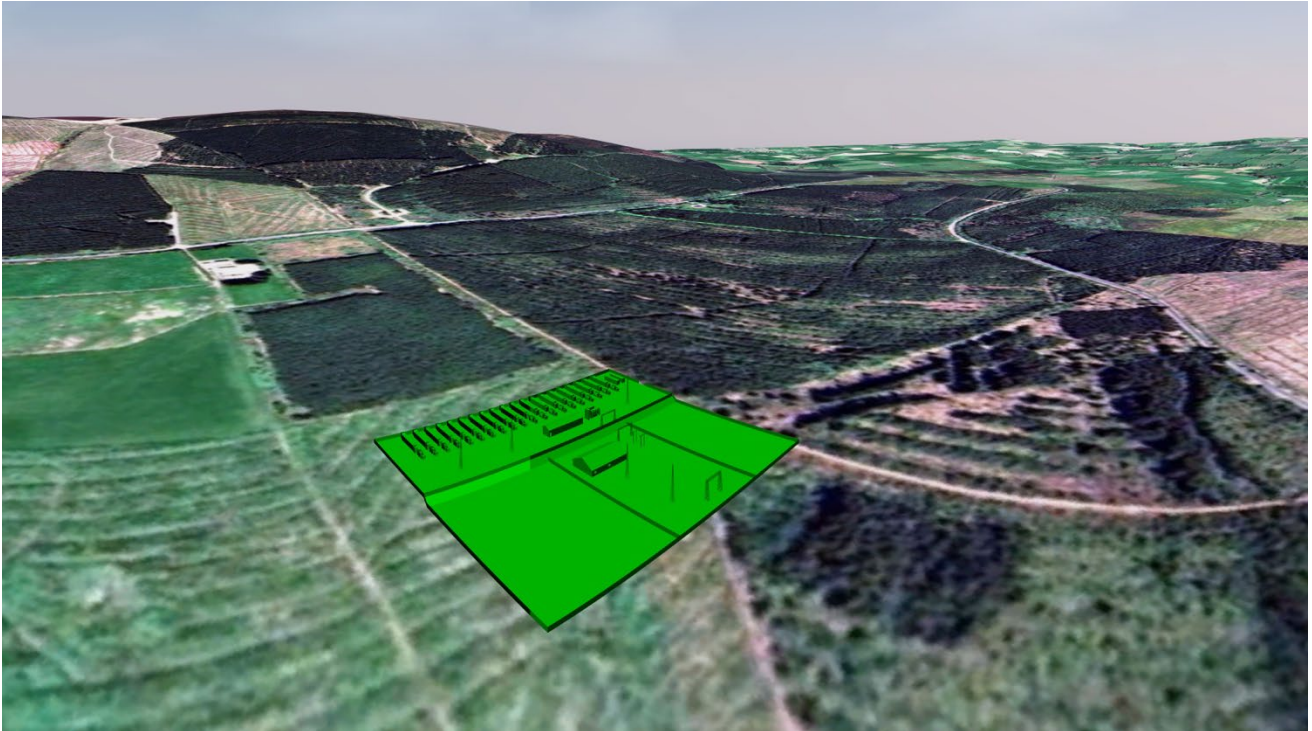
**Table 14-7: Significance of Construction Phase Visual Effects**

Project component	Magnitude of effect	Landscape Sensitivity	Significance / Quality / Duration of Effect
110kV GCR and 33kV CNR	Low-negligible	Medium-low	Slight-imperceptible/ Negative / Temporary
110 kV Substation	Negligible	Medium-low	Imperceptible/ Neutral/ Permanent
Mullenaboree substation removal	Low	Medium-low	Slight/ Positive/ Permanent

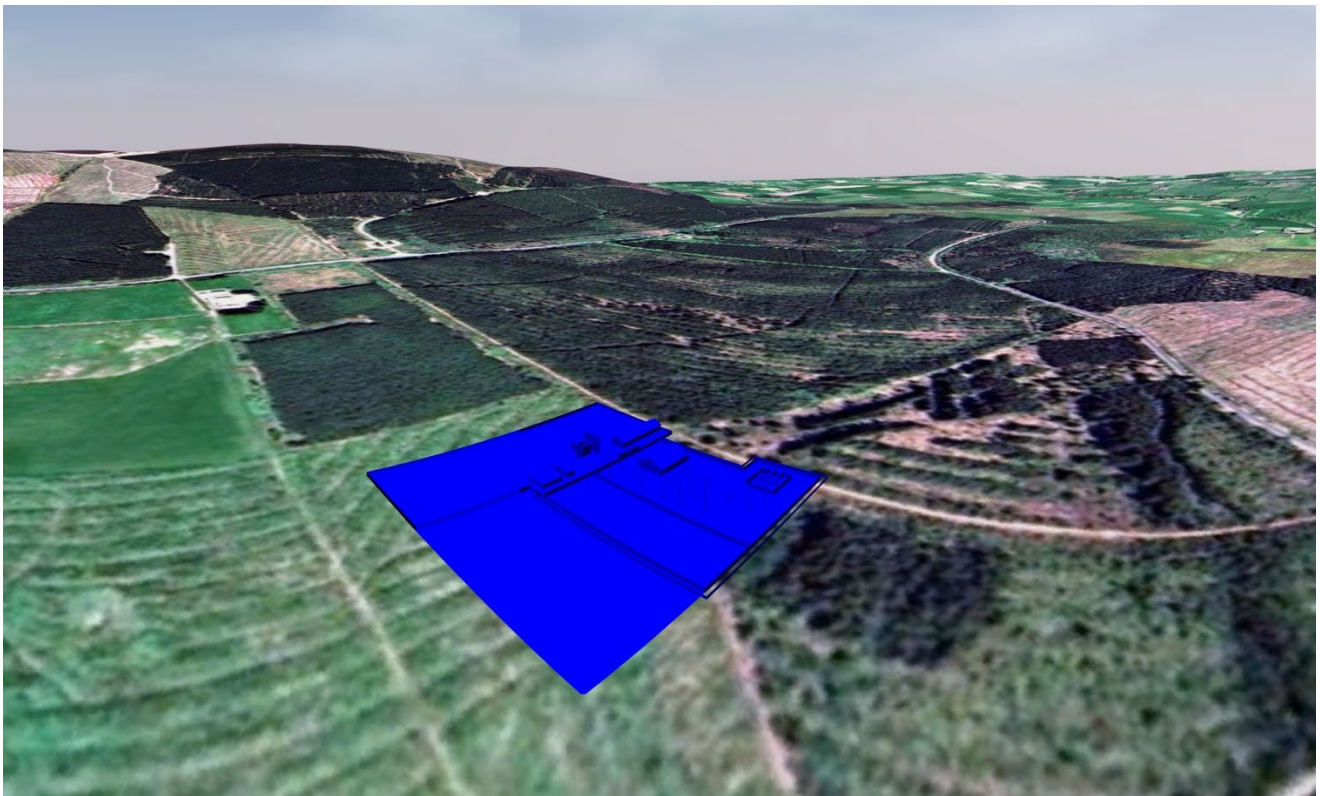
#### 14.4.4 Visual Impacts - Operational Phase

There will be no operational phase visual effects relating to the cable routes as they will be buried below ground / road and with the surface above fully reinstated.

Although the 110 kV Substation will be of a different and reoriented design, it has a similar macro appearance to the untrained eye and will occupy a slightly smaller compound in the same location as the permitted substation. Consequently, the operational phase visual impact is not deemed to be materially different to that of the permitted substation. See Plates 14.1 and 14.2 below, which provide a contextual aerial schematic view of the 3D models of the permitted and proposed 110 kV Substation in order to highlight the similar spatial and component characteristics of the permitted and proposed substations.



**Plate 14-1: Permitted Substation context at Lackendarragh North**



**Plate 14-2: Proposed Substation context at Lackendarragh North**

The potential removal of the permitted Mullenaboree substation from the development will avoid any operational phase visual effects relating to it and although these were not significant, the effect will be positive.

On the basis of the assessment outlined above, the significance of operational phase landscape effects is summarised in Table 14-8 Below.



**Table 14-8: Significance of Operational Phase Visual Effects**

Project component	Magnitude of effect	Landscape Sensitivity	Significance / Quality / Duration of Effect
110kV GCR and 33kV CNR	Negligible	Medium-low	Imperceptible/ Neutral/ Permanent
110 kVSubstation	Negligible	Medium-low	Imperceptible/ Neutral/ Permanent
Mullenaboree substation removal	Low	Medium-low	Slight/ Positive/ Permanent

#### 14.4.5 Cumulative Impacts

All known existing and proposed developments that could potentially generate cumulative effects with the Proposed Development in relation to Landscape and Visual during construction, operation and decommissioning were identified and examined as part of this assessment. Please refer to Appendix 1.3: Projects Considered in the Cumulative Assessment for a full list of all cumulative developments considered.

The main consideration in terms of cumulative landscape and visual effects is the permitted CGEP development. However, this has been used as the baseline context and driver for the proposed grid connection development, and both are inextricably linked.

The main form of cumulative effect is likely to relate to the construction phase where the underground cables will be constructed at the same time as the permitted wind farm development potentially resulting in a greater number of HGV movements and higher intensity of construction activity within the site and along the local road network. Such effects will be most noticeable in close proximity to the wind farm site but may have the perception of being dispersed along the road network to the Barrymore substation due to the 110 kV GCR. Given that the 110 kV GCR and 33 kV CNR effects are deemed to be so minor in the context of the construction of the overall wind farm development, construction phase cumulative effects will also be no greater than Slight-imperceptible.

It is not considered that there will be any material operational phase cumulative effects in conjunction with the permitted CGEP development other than the positive effect of the proposed grid connection eliminating the need for the Mullenaboree substation. Furthermore, there will not be any other material cumulative effects with other projects considered in Appendix 1.3, Volume 3 of the EIAR.

### 14.5 Statement of Significance

Based on the landscape, visual and cumulative assessment contained herein, there will not be any significant effects arising from the proposed Coom Green Energy Park Grid Connection.



## 14.6 References

- Environmental Protection Agency (EPA) publication 'Guidelines on the Information to be contained in Environmental Impact Statements (2022) and the accompanying Advice Notes on Current Practice in the Preparation of Environmental Impact Statements (2022).
- Guidelines for Landscape and Visual Impact Assessment (GLVIA3), Landscape Institute, and the Institute of Environmental Management and Assessment publication entitled (IEMA, 2013).



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