27. LANDSCAPE AND VISUAL IMPACT ASSESSMENT

27.1 Introduction

This chapter of the EIAR consists of an assessment of potential impacts from the Project within the context of Landscape and Visual impacts relating to the Onshore Site during its construction, operation and maintenance, and decommissioning phases. The onshore elements of the Project are defined in Section 1.1.1 of Chapter 1 of this EIAR.

Although closely linked, landscape impacts and visual impacts are assessed separately. Collectively, these impacts are referred to throughout as Landscape and Visual Impact Assessment (LVIA).

Landscape Impact Assessment (LIA) relates to changes in the physical landscape brought about by the Onshore Site, 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 character of that area. By understanding the aspects that contribute to landscape character, it is possible to make assessments 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 Onshore Site without causing unacceptable adverse changes to its character.

Visual Impact Assessment (VIA) relates to assessing effects 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).

Cumulative LVIA is an assessment of additional changes to the landscape or visual amenity caused by the Onshore Site in conjunction with other developments (associated or separate to it), or actions that occurred in the past, present or are likely to occur in the foreseeable future. Such projects will include other existing, permitted or proposed developments.

27.1.1 Statement of Authority

This LVIA was prepared by Richard Barker (BA-Env, PG Dip Forestry, MLA, MILI) Divisional Director at Macro Works Ltd (part of APEM group); a consultancy firm specialising in Landscape and Visual Assessment and the preparation of associated maps and graphics. Relevant experience includes over 19 years of assessing a broad range of infrastructural, industrial and commercial projects, incorporating over 100 onshore wind farms and numerous coastal development projects including the planning and pre-planning stages of five offshore wind farms. Richard has presented guest lectures on LVIA to the UCD EIA Management course and also presented two conference papers to the Irish Landscape Institute relating to best practice in LVIA and a case study on the use of relevant guidelines (GLVIA-3) for a large onshore wind farm.

27.2 Legislation, Policy and Guidelines

In addition to those listed in Chapter 1: Introduction and Chapter 2: Background and Planning Policy, this chapter of the EIAR is informed by the following documents.

- Environmental Protection Agency (EPA) publication '*Guidelines on the Information to be contained in Environmental Impact Assessment Reports'* (2022)

- Landscape Institute and the Institute of Environmental Management and Assessment, '*Guidelines of Landscape and Visual Impact Assessment: Third Edition'* (2013 and Notes and Clarifications 2024) (GLVIA3);
- Clare County Development Plan 2022 – 2028
- Failte Ireland, EIAR '*Guidelines for the Consideration of Tourism and Tourism Related Projects*.' (2011)

27.3 Consultation

Consultation relevant to the LVIA for this Project includes the competent authority, An Bord Pleanála (ABP), as well as statutory bodies of Clare County Council and Fáilte Ireland. In addition to direct feedback from consultation meetings, relevant and detailed scoping responses were received from both Clare County Council and Fáilte Ireland. Although consultation was undertaken with Galway County Council, no aspect of the Onshore Site will be visible from County Galway, and they had no comments on this aspect.

ABP feedback predominantly related to the scope and methodology of the assessment as well as the extent of the LVIA Study Area. Clare County Council feedback related to due consideration of the County Development Plan and particularly scenic designations, landscape sensitivity ratings, LVIA related policies and the Renewable Energy Strategy.

Fáilte Ireland highlighted tourism / wind energy related visitor attitude studies in addition to flagging their own EIAR Guidelines for the Consideration of Tourism and Tourism Related Projects as a document that needs to be considered.

Public consultation was also undertaken for the Project in general in the form of public consultation events and a dedicated Project website. Feedback received relevant to the Onshore Site was considered and is addressed in this chapter.

27.4 Assessment Methodology

27.4.1 Outline Methodology

The Landscape and Visual Impact Assessment (LVIA) methodology, which is based on relevant guidance and industry best practice, consists of a desktop baseline study followed by fieldwork and then assessment aided by maps and verifiable photomontage images. It should be noted that GLVIA3 deliberately avoids the use of standardised assessment criteria.

The desktop study comprised of the following:

- Review of a Zone of Theoretical Visibility (ZTV) map, which indicates areas from which the development is potentially visible in relation to terrain within the Study Area (see Section 27.4.2 for definition).
- Review of the Regional Seascape Character Assessment (2020).
- Review of relevant County Development Plans, particularly with regard to sensitive landscape and scenic view/route designations.
- Online review of tourism, recreational and heritage features within the study area that may be potential visual receptors.
- Selection of potential Viewshed Reference Points (VRPs) (defined in Section 27.4.3.4) from key visual receptors to be investigated during fieldwork for actual visibility and sensitivity.

- Production of wireframe images of the development at each potential viewpoint (illustrating the turbines in a bare-ground context) to aid fieldwork / viewpoint selection.

Fieldwork comprised of the following:

- Examination of the salient landscape/ seascape character of the Onshore Site and its immediate surrounds as well as the wider study area.
- Investigation of potential viewpoint locations identified at the desk study stage and selection / rejection of each based on relevant guidelines and best practice.
- Selection of other relevant viewpoints that may not have been apparent from the desk study (local monuments, walkways etc.) based on expert observation during fieldwork.
- Capture of high-quality base photography in clear viewing conditions from which to prepare photomontages of the Onshore Site.
- Examine the route of the proposed Onshore Grid Connection (OGC) and all other onshore infrastructure such as the Onshore Compensation Compound (OCC).

The LVIA assessment comprises the following:

- Assessment of landscape sensitivity
- Assessment of the magnitude of landscape effects
- Assessment of the significance of landscape effects
- Assessment of visual receptor sensitivity
- Assessment of visual impact magnitude at representative viewpoint locations (using verifiable photomontages)
- Assessment of visual impact significance
- Assessment of cumulative landscape and visual effects

The sensitivity of Landscape and Visual receptors is derived from combining susceptibility and value assessments to determine overall sensitivity. Similarly, the magnitude of effects is derived from combining judgements in respect of the size, scale and nature of the effect with considerations of duration and reversibility. Sensitivity and magnitude assessments are then combined / weighed against each other to determine the overall significance of effect. Please see a schematic of this process in Figure 27-1 below.

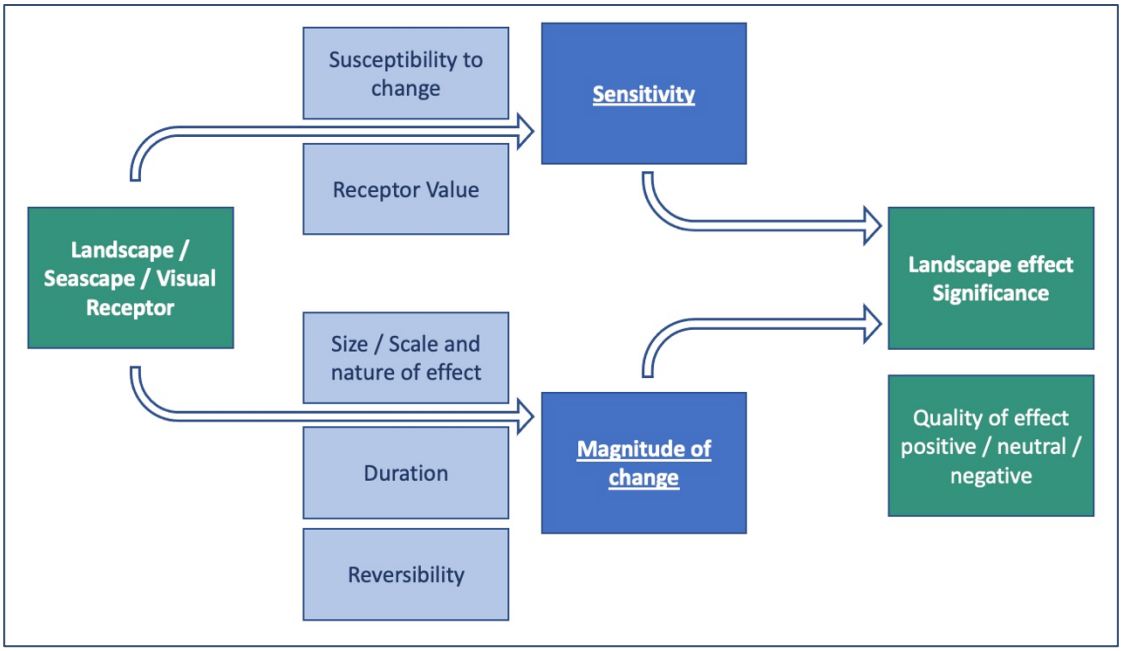

Figure 27-1 Overview of Landscape / Seascape and Visual process derived from GLVIA3

27.4.2 Study Area

For the OCC, which is the only long-term overt (above ground) feature of the onshore development area, a 3km radius study area from the redline boundary surrounding the OCC has been applied on the basis of potential visibility and the potential for significant effects being extremely unlikely beyond such distances even in the context of highly sensitive receptors due to factors of scale, distance and context (Figure 27-2). This will be referenced hereafter as the OCC Study Area. For the OGC, a lesser 500m buffer either side of the alignment defines the study area as the potential for significant effects is less than from the OCC. This will be referred to as the OGC Study area and it should be noted that within 3km of the OCC the study areas overlap. The study areas determined for these aspects of the Onshore Site are in accordance with the proportional approach to impact assessment promoted by GLVIA3 and is based on experienced professional judgement.

Both bare-ground Digital Terrain Model (DTM) ZTV mapping and Digital Surface Model (DSM) based ZTV mapping, which accounts for screening by the likes of vegetation and buildings, has been prepared in relation to the proposed OCC Study Area. The Visual Impact Assessment of the OCC is based on verified photomontages for viewpoints VP1 to VP10 of the LVIA photomontages.

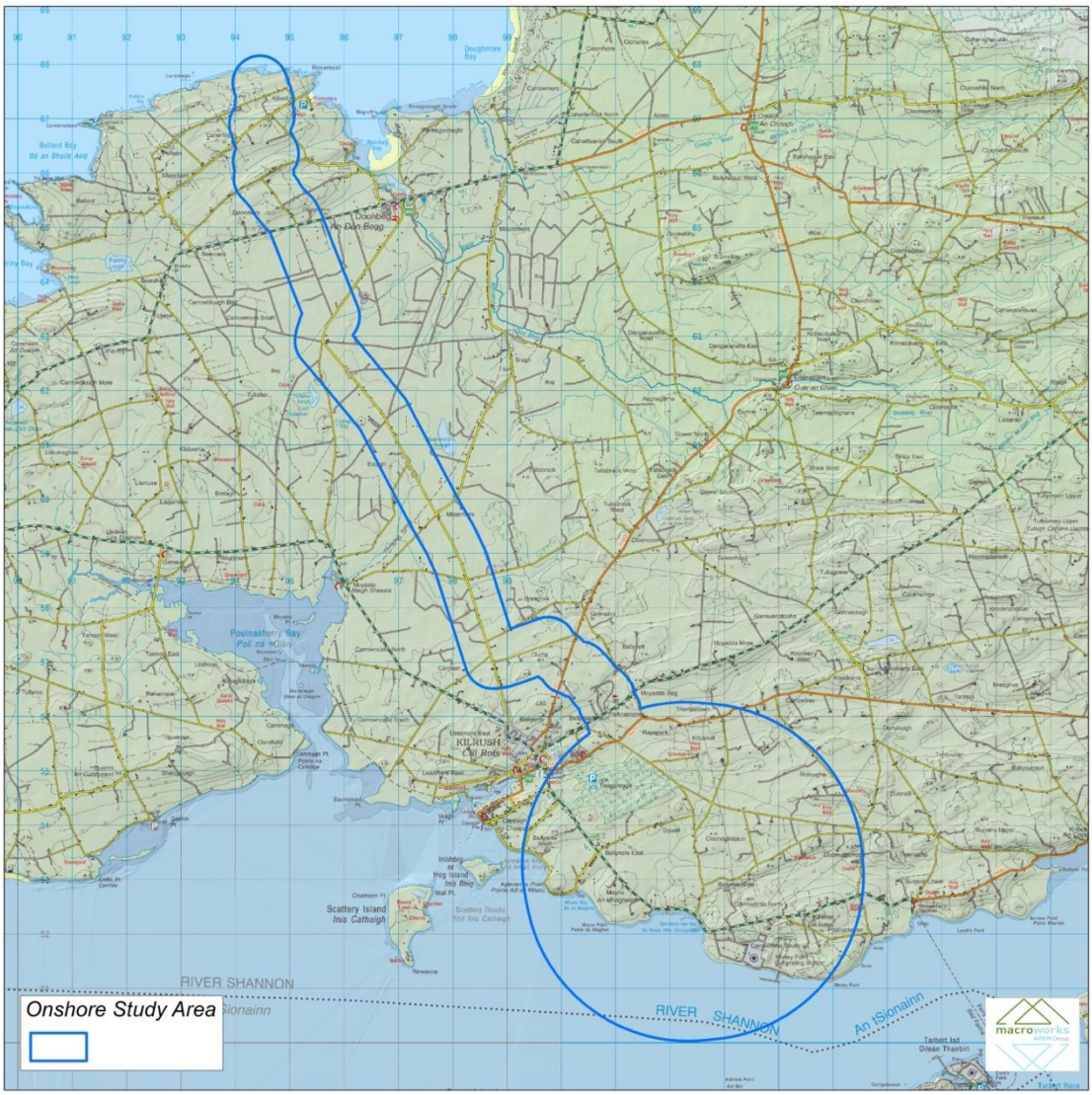

Figure 27-2 Onshore Site Landscape and Visual Study Area

27.4.3 Assessment Criteria

The assessment of landscape effects is separate to that of visual effects and thus, the criteria also differ. Nonetheless, both forms of appraisal rely on the weighing of receptor sensitivity against impact magnitude. Although not identical to the sample criteria used in the EPA Guidelines (2022), because it avoids using the term 'significant' within the categories themselves, the criteria contained in Tables 27-1, Table 27-2, and Table 27-3 is consistent with LVIA best practice in Ireland and the UK and corresponds closely with the EPA criteria (and Associated Notes and Clarifications). As identified in the Guidelines for Landscape and Visual Impact Assessment (2013), the critical factor is to clearly identify which categories of assessment equate to significant effects in EIA terms.

27.4.3.1 Landscape Sensitivity

The sensitivity of the seascape/landscape to change relates to susceptibility and value, determining the degree to which a particular landscape receptor (Seascape/Landscape Character Area (LCA) or feature) can accommodate changes or new features without unacceptable detrimental effects to its essential characteristics.

Landscape Susceptibility relates to the ability of the receptor to accommodate change, and this relates to the scale and nature of the development in question rather than simply intrinsic susceptibility. Factors to be considered include the naturalistic qualities of the receptor and its quality / condition (pristine or degraded) as well as cultural and social associations to the landscape. Also considered are perceptual aspects such as remoteness / tranquilly, degree of enclosure / openness, movement and aesthetic qualities. Please see Table 27-1 below for further detail on landscape susceptibility.

Table 27-1 Landscape Susceptibility

Higher Susceptibility Criteria	Lower Susceptibility Criteria
Perceptual Qualities: The landscape has strong scenic qualities associated with naturalness and tranquilly	The landscape has a high degree of contemporary development associated with settlement, industry and primary production
Condition: The landscape has a high degree of integrity and utility indicating care and management.	The landscape is degraded with unutilised or waste areas apparent and with little sign of care or management
Scale / Simplicity: The landscape is intricate and complex where large scale development could generate scale conflict	The landscape is of a broad scale with simple legible elements that can accommodate large development without a sense of scale conflict
Intensity and scale of existing development: The landscape has high levels of existing development of considerable scale and with associated movement	The landscape has low levels of existing development and that which exists is of small scale and static in nature
Openness / enclosure: The landscape is strongly enclosed with limited viewsheds that can be readily influenced by new and large-scale development	The landscape is broad and open with vast viewsheds that can readily accommodate new and large-scale development

Landscape Value relates to societal recognition of the receptor at a designated or non-designated level. It often relates to the rarity or representativeness of the receptor as well as its quality and condition. Recreational, conservation, tourism and scenic value are also key considerations. Higher order value is likely to be associated with landscapes / seascapes that are designated for protection at a national or

international level, whereas lower order value might be associated with rural or coastal productivity. Please see Table 27-2 below for further detail on landscape value criteria.

Table 27-2 Landscape Value Criteria

Higher Value Criteria	Lower Value Criteria
Designation: The landscape / seascape is protected by National / international level policy in relation to its natural and scenic beauty.	The landscape does not have a formal designation of protection or cautious management
Rarity: The landscape / seascape is rare or unique at a national or regional level	The landscape type is commonly found throughout the local, regional and national context
Cultural Associations: The landscape / seascape is strongly associated with cultural traditions, historic events or myth and legend	The landscape is not recognised as being associated with cultural traditions, historic events or myth and legend
Scenic / Perceptual: The landscape / seascape has a high degree of scenic value associated with naturalistic, conservation value and tranquillity.	The landscape has no recognised scenic value and is associated with settlement, cultivation development and production.
Tourism, recreation and amenity: The landscape / seascape is strongly associated with tourism recreation and amenity and attracts high number of visitors	The landscape is not associated with tourism recreation and amenity and is not recognised as a draw for visitors

Taking consideration of susceptibility and value attributes, overall Landscape Sensitivity is classified using the following criteria (Table 27-3).

Table 27-3 Landscape Sensitivity Criteria

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 seascapes and iconic sections of the coastline, 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.
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 but are generally utilitarian in nature.
Negligible	Areas of landscape character that highly industrialised and utilitarian in nature where there would be a reasonable capacity to embrace change. Management objectives in such areas could be focused on change, creation of landscape improvements and/or restoration to realise a higher seascape value.

27.4.3.2 Landscape Impact Magnitude

The magnitude of a predicted seascape/landscape impact is a product of the size / scale of change as a result of a proposed development in the context of the receptor, as well as the geographical extent across which it is likely to be experienced and to a lesser extent the duration and reversibility of the effect.

The **size / scale** of the effect is the degree of change that will occur as a result of existing elements being lost and/or new ones introduced and is a measure of the degree to which these changes alter the prevailing character of the landscape receptor. Higher order judgements are likely to result from dramatic change to a substantial proportion of the receptor in question. However, this could be in the context of large-scale change at a specific receptor that would be experienced as a smaller effect for the broader landscape character area it is contained within.

The **Geographical Extent** of the effect is not how large or distinctive the physical development is, but the extent across which its effects are experienced. Using the same example above, distinct change to a small landscape receptor might be experienced as very localised effects with a confined geographical extent. The loss or introduction of other elements might have effects experienced across a number of landscape character areas i.e. with a large geographical extent.

Taking consideration of the size / scale of the effect and its geographical extent, overall magnitude of landscape effects is determined on the basis of the criteria contained in (Table 27-4).

Table 27-4 Magnitude of Landscape Impacts

Sensitivity	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 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 seascape/landscape character, and quality.
Low	Changes affecting small areas of landscape character and quality, together with the loss of some less characteristic seascape/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 seascape/landscape or are hardly perceivable.

27.4.3.3 Visual Receptor Sensitivity

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 to establish visual receptor sensitivity at each Viewshed Reference Point.

27.4.3.3.1 *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".

27.4.3.3.2 *Values Associated with Views*

1. ***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.*
2. ***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.

3. ***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.*
4. ***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*
5. ***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.*
6. ***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.*
7. ***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.*
8. ***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.*
9. ***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.*
10. ***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.*
11. ***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.*
12. ***Sense of place****. This considers whether there is special sense of wholeness and harmony at the viewing location; and*
13. ***Sense of awe****. This considers whether the view inspires an overwhelming sense of scale or the power of nature.*

The same categories of sensitivity used for landscape sensitivity (Very High down to Negligible) are also used to classify visual receptor sensitivity. Those locations which are deemed to satisfy many of the above viewer susceptibility and view value criteria are likely to be of higher sensitivity, whilst locations that satisfy few of those criteria are likely to be considered of a lower overall sensitivity. No relative importance is inferred by the order of listing. Overall sensitivity may be a result of a number of these factors or, alternatively, a strong association with one or two in particular (see Table 27-5).

Table 27-5 Visual Receptor Sensitivity

Visual Receptor Sensitivity	Viewer Susceptibility	View Value
Very High	Viewers who have sought out a particular view due to its remarkable scenic qualities and who are likely engaged in active or passive recreation. Minimal tolerance for change.	Unique views of remarkable scenic quality involving distinct, naturalistic or historic features that are designated for protection and/or obtained from landscapes / seascapes protected by policy at a national or international level. Minimal tolerance for change.

High	Viewers travelling on designated scenic routes or engaged on active or passive recreation where views of the surrounding landscape / seascape are important to the experience and residents of areas where views contribute to the landscape / seascape setting. Low tolerance for change.	Views of considerable scenic quality involving distinct, naturalistic or historic features that are designated for protection and/or obtained from landscapes / seascapes protected by policy at a Regional / County level. Low tolerance for change.
Medium	Viewers travelling on routes that have some scenic quality or sense of tranquillity. Recreationalists engaged in activities where scenic amenity is appreciated, but not key to the experience and residents of areas where views do not contribute strongly to the landscape / seascape setting. Medium tolerance for change.	Views with some scenic quality that might involve notable, naturalistic or historic features that are not designated for protection and are not obtained from landscapes / seascapes identified for protection. Medium tolerance for change.
Low	Viewers engaged in recreation that does not involve an appreciation of scenic amenity, those travelling on busy roads with little scenic quality within the surrounding landscape / seascape setting. People at their place of work where visual setting in not key to the working experience. High tolerance for change.	Views without recognised scenic quality that are typical in nature and without naturalistic and historic features present, but likely with utilitarian features present. High tolerance for change.
Negligible	Viewers engaged in activities or present at locations where visual amenity is not a consideration or where the visual setting is a detraction. High tolerance for change.	Views without any amenity value where the visual setting may be degraded. High tolerance for change.

27.4.3.4 Representative Viewpoint Selection

The results of the Zone of Theoretical Visibility (ZTV) analysis (defined in Section 27.6.4.1) provide a basis for the selection of representative viewpoints also known as Viewshed Reference Points (VRPs), which are the locations used to study the visual impact of the Onshore Site features. These are selected on the basis of relevant guidelines, best practice and professional experience.

GLVIA3 suggests that to include each and every location that provides a potential view of a project would result in an unwieldy assessment and make it extremely difficult to draw out the key impacts arising from the Project. Instead, a variety of visual receptor locations are selected that are likely to provide views of the Project from different distances, different angles and different contexts whilst representing sensitive visual receptors (viewers/ groups resident at particular locations or engaged in particular activities). Occasionally VRPs at highly sensitive receptors are included where visibility of the OCC is highly unlikely in order to confirm the absence of impact. In accordance with GLVIA3, these are defined as 'illustrative' views.

The visual impact of a proposed development is assessed using up to 6 categories of receptor type as listed below:

- Key Views (from features of national or international importance);

- Designated Scenic Routes and Views;
- Local Community views;
- Centres of Population;
- Major Routes; and
- Amenity, heritage and tourism features.

Where a VRP might have been initially selected for more than one reason it will be assessed according to the primary criterion for which it was chosen. The characteristics of each receptor type vary as does the way in which the view is experienced. These are described below.

Key Views

These VRPs are at features or locations that are significant at the national or even international level, typically in terms of heritage, recreation or tourism. They are locations that attract a significant number of viewers who are likely to be in a reflective or recreational frame of mind, possibly increasing their appreciation of the landscape around them. The location of this receptor type is usually quite specific.

Designated Scenic Routes and Views

Due to their identification in the County Development Plan this type of VRP location represents a general policy consensus on locations of high scenic value within the Study Area. These are commonly elevated, long distance, panoramic views and may or may not be mapped from precise locations. They are more likely to be experienced by static viewers who seek out or stop to take in such vistas.

Local Community Views

This type of VRP represents those people who live and/or work in the locality of the Project, usually within a 5km radius of the site. Although the VRPs are generally located on local level roads, they also represent similar views that may be available from adjacent houses. The precise location of this VRP type is not determinative; however, clear elevated views are preferred, particularly when closely associated with a cluster of houses and representing their primary views. Coverage of a range of viewing angles using several VRPs is necessary in order to sample the spectrum of views that would be available from surrounding sensitive receptors.

Centres of Population

VRPs are selected at centres of population primarily due to the number of viewers that are likely to experience that view. The relevance of the settlement is based on the significance of its size in terms of the Study Area or its proximity to the site. The VRP may be selected from any location within the public domain that provides a clear view either within the settlement or in close proximity to it.

Major Routes

These include national and regional level roads and rail lines and are relevant VRP locations due to the number of viewers potentially impacted by the Onshore Site.

The precise location of this category of VRP is not critical and might be chosen anywhere along the route that provides clear views towards the Project, but with a preference towards close and/or elevated views. Major routes typically provide views experienced whilst in motion and these may be fleeting and intermittent depending on screening by intervening vegetation or buildings.

These views are often one and the same given that heritage locations can be important tourist and visitor destinations and amenity areas or walking routes are commonly designed to incorporate heritage features. Such locations or routes tend to be sensitive to development within the landscape as viewers are likely to be in a receptive frame of mind with respect to the landscape around them. The sensitivity of this type of visual receptor is strongly related to the number of visitors they might attract and, in the case of heritage features, whether these are discerning experts or lay tourists. Sensitivity is also heavily influenced by the experience of the viewer at a heritage site as distinct from simply the view of it. This is a complex phenomenon that is likely to be different for every site. Experiential considerations might relate to the sequential approach to a castle from the car park or the view from a hilltop monument reached after a demanding climb. It might also relate to the influence of contemporary features within a key view and whether these detract from a sense of past times. It must also be noted that the sensitivity rating attributed to a heritage feature for the purposes of a landscape and visual assessment is not synonymous with its importance to the Archaeological or Architectural Heritage record.

27.4.3.5 Visual Impact Magnitude

The criteria used to assess visual impact magnitude are included in Table 27-6.

Table 27-6 Magnitude of Visual Impact

Magnitude of Impact	Description
Very High	The proposal obstructs or intrudes into a large proportion or critical part of the available vista and is without question the most noticeable element. An extensive degree of visual change will occur within the scene completely altering its character, composition and associated visual amenity
High	The proposal obstructs or 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 change will occur within the scene substantially altering its character, composition and associated visual amenity
Medium	The proposal represents a moderate intrusion into the available vista and is a readily noticeable element. A noticeable degree of visual change will occur within the scene perceptibly altering its character, composition and associated 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 influence the visual amenity of the scene

27.4.3.6 Significance of Landscape and Visual Effects

The significance of both a landscape effect and a visual effect is based on a balance between the sensitivity of the seascape/landscape receptor and the magnitude of the impact. The significance of landscape and visual effects is arrived at using the matrix detailed in Table 27-7. Please see Table 27-8 below for detail on the indicative significance of effect criteria descriptions.

Table 27-7 Landscape and Visual Matrix

Parameter	Sensitivity of Receptor*				
Scale / Magnitude	Very High	High	Medium	Low	Negligible
Very High	Profound	Profound-major	Major	Moderate	Slight
High	Profound-major	Major	Major - moderate	Moderate-slight	Slight-imperceptible
Medium	Major	Major - moderate	Moderate	Slight	Imperceptible
Low	Moderate	Moderate-slight	Slight	Slight-imperceptible	Imperceptible
Negligible	Slight	Slight-imperceptible	Imperceptible	Imperceptible	Imperceptible

** Shaded cells are considered to equate with 'Significant' effects where that impact is also deemed to be of a 'Negative' quality.*

Table 27-8 Indicative significance of effect criteria descriptions

Magnitude of Impact	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.
Major	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the landscape. There are notable changes in landscape characteristics over a substantial area or an intensive change over a more limited area.	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the visual environment. 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	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.	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.
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.

27.4.3.7 Quality and Timescale of Effects

In addition to assessing the significance of landscape effects and visual effects, EPA Guidelines (2022) for EIAs requires that the quality of the effects is also determined. This could be negative/adverse, neutral, or positive/beneficial.

Landscape and Visual effects are also categorised according to their duration based on the EPA Guidelines (2022) definitions:

- 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

27.5 Baseline Conditions

The following section sets out the baseline scenario for each aspect of the proposed onshore development. This includes a physical description of the receiving landscape setting and visual receptors as well as the associated policy context from the Clare County Development Plan (2022-2028)

27.5.1 Onshore Landfall Location and Onshore Grid Connection

The landscape setting of the proposed Onshore Landfall Location (OLL) area at Killard, is an area of agricultural farmland located 900m northwest of the White Strand Beach, near the settlement of Doonbeg (Figure 27-3). A population of residential dwellings and several B&B guest houses are concentrated within the near vicinity, oriented north towards the Atlantic Coast. The OGC initially runs south from the Transition Joint Bay (TJB) at the OLL, primarily across pastoral farmland and along Killard Road for approx. 240 metres, crossing local roads as encountered. At approximately 1.7km from the OLL the OGC follows a series of local roads for approx. 10km past a patch of modified bog and under the N67. It passes several dispersed rural settlements and before entering the settlement of

Kilrush, it diverts east along a local road for approx. 1km. The OGC turns southeast across further farmland under the R483, then enters the Kilrush Golf Club grounds. Within the golf course, the route traverses along a track through the centre of a patch of established woodland species for approximately 900m before exiting the grounds under the N68. It crosses the N68 and runs through agricultural fields to connect with the R473 briefly in a south-westerly direction before continuing south-eastwards along local roads to connect with the OCC. The OGC exits the OCC via the southeast corner, runs alongside the N67 to the south and continues to the connection point at Moneypoint 220kV Substation.

Clare County Development Plan (CDP) 2023-2029

The OLL is contained within the LCT23 '*Peninsula Farmland*'. LCTs within the OGC study area, include: LCT4 '*Coastal Plain and Dunes*', LCT10 '*Flat Estuarine Farmland and Islands*', and LCT9 '*Farmed Rolling Hills*'.

With regards to the LCAs of the study area, the initial 12km from the OLL prior to the hinterlands of Kilrush is contained within LCA 21, '*Loop Head*' LCA. The remainder of the OGC is contained within 'LCA 18 '*Shannon Estuary Farmland.*' In terms of seascape, the OLL is located within Seascape LCA 7 '*Bollard Bay and Donegal Point*'.

Landscape Sensitivity

With regard to landscape sensitivity, the OLL comprises an area designated a '*heritage landscape*' located along the coastline. The OGC initially runs through that heritage landscape designation, but inland from the coast it traverses the '*settled landscape*' designation.

Scenic Views/ Designations:

Review of the Clare County Development Plan indicates that there are no scenic routes/view designations located within the OCG Study Area.

Figure 27-3 Landscape context surrounding the OLL at Killard

27.5.2 Onshore Compensation Compound

The OCC at Ballymacrinan is contained within an agricultural landscape, 600m north of the Shannon Estuary (Figure 27-4). Kilrush is the closest settlement in relation to the OCC, located 2.8km northwest of the site, the outskirts of the settlement occupy the northwest periphery of the study area. Dispersed rural residential development occurs throughout the study area, with the nearest residential dwelling located 220 metres south of the OCC, and another residential dwelling located approximately 310 metres north of the OCC. In terms of road infrastructure, the N67 national route is located 580m south of the Onshore Site at its nearest point and traverses east to west through the study area.

In terms of land use, the study area is dominated by a broad tapestry of agricultural farmland used predominately for stock grazing. The immediate study area generally reflects a low-lying, lightly settled agricultural landscape that is highly influenced by the industrial activity to the southeast. Associated farm buildings and infrastructure are spread across the immediate study area accordingly. Agriculture is of a relatively intensive scale, reinforced by the condensed field network. The Moneypoint Power Station occupies the largest utilitarian element within the study area, located 1km southeast of the OCC. The Moneypoint Power Station is fringed by a band of woodland vegetation to the north of the Onshore Site and the N67 national route. Evidence of further industrial activity is depicted in the adjacent lands of the Moneypoint Power Station north of the N67. Wind energy is established in the lands bordering the coast. Gentle undulations are a prominent feature of the study area, with undulating landforms exhibited along the coastline. Conifer forestry is a notable land use most commonly concentrated in the northeast quadrant of the study area.

With regard to tourism and amenity values, part of the Wild Atlantic Way (WAW) is located in the south of the OCC Study Area. The WAW is a 2,500km tourism trail predominately on the west coast

that ranges from Donegal to Cork. The section of the WAW within the study area, primarily follows the coastline, initially along Coast Road, then along part of the N67 before ending as it reaches the Moneypoint Power Station closing to within 570m of the OCC at its nearest point. The study area depicts more susceptible coastal views towards the west, as opposed to the east that reveals a more industrial character.

Other amenities of local value within the study area include;

- Kilrush Forest Recreational Area located 1.4km northwest
- Vandeleur Walled Garden & Visitor Centre adjacent to Kilrush Forest, approximately 2.5 km northwest of the OCC
- Kilrush Shamrocks GAA Club c.2km northwest
- Cappa Pier located 3.8km west
- Several beaches and scenic views of local value located along the coast to the west

Figure 27-4 Landscape context surrounding the OCC at Ballymacrinan

Clare County Development Plan (CDP) 2023-2029

The current Clare County Development Plan (CDP) includes a Landscape Character Assessment that initially divides the county into Landscape Character Types (LCTs) described as; *" distinct types of landscape that are relatively homogenous in character. They commonly share similar combinations of geology, topography, land cover and historical land use."* The proposed OCC is contained within the '*Farmed Rolling Hills'* LCT (Figure 27-5).

LCTs are used to determine 21 geographically distinct Landscape Character Areas (LCAs) described as *"units of the landscape that are geographically specific and have their own character and sense of place. Each LCA has its own distinctive character, based upon patterns of geology, landform, land use, cultural, historical and ecological features".* The Study Area associated with the OCC is contained entirely within 'LCA 18 *'Shannon Estuary Farmland'* (Figure 27-6).

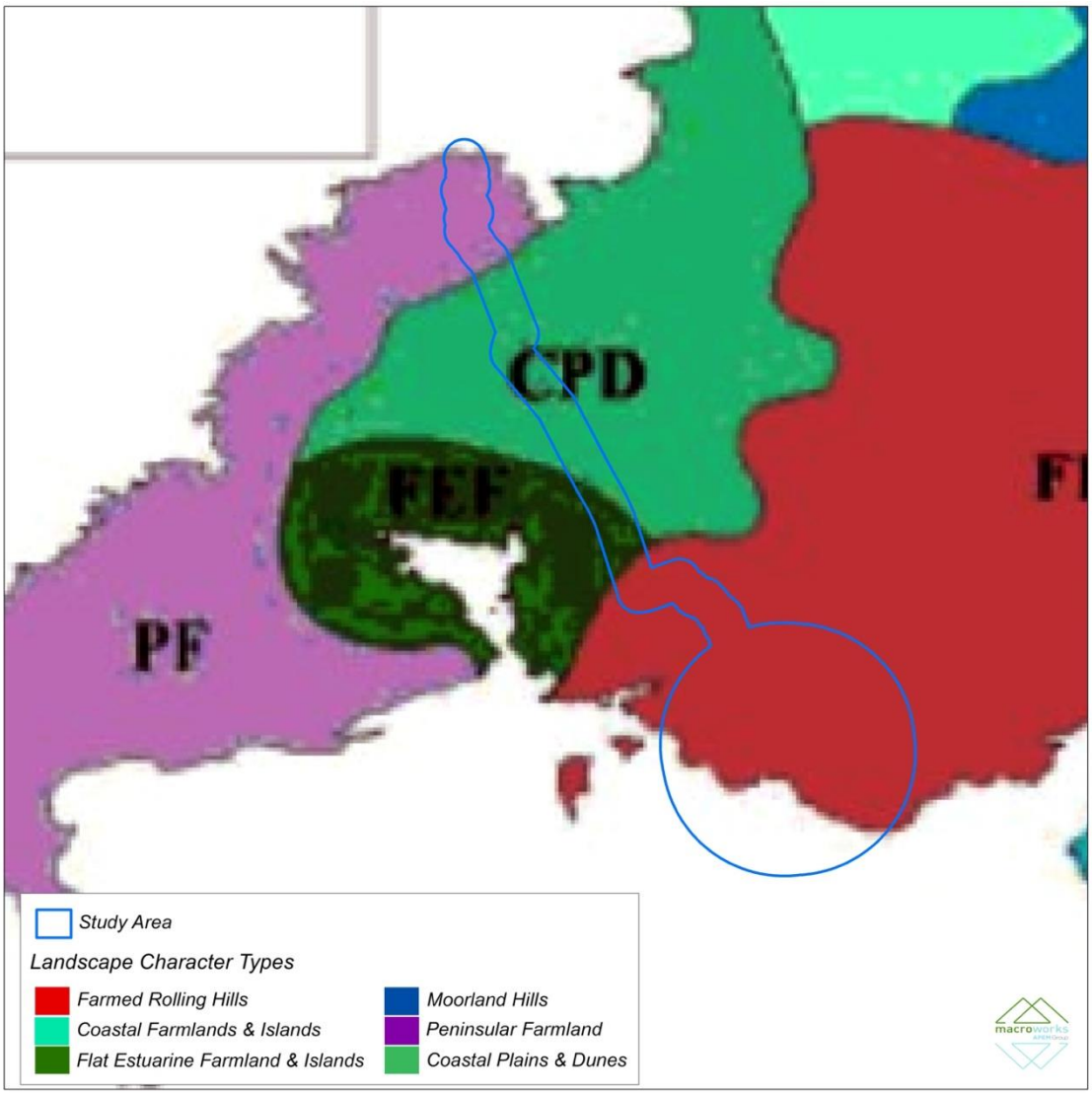

Figure 27-5 Clare County Development Plan – Landscape Character Types

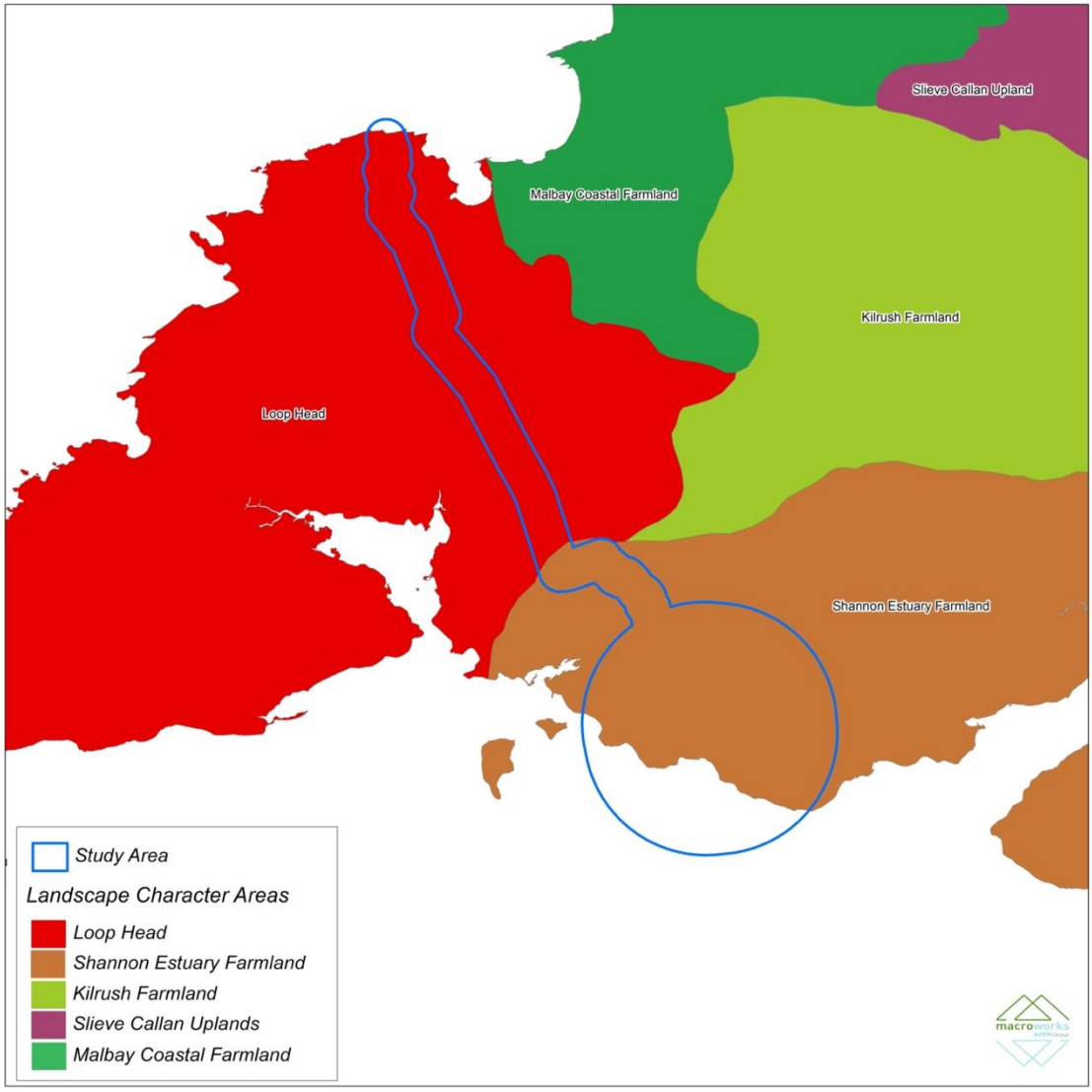

Figure 27-6 Clare County Development Plan – Landscape Character Areas

The southern portion of the study area occupies the seascape of the Shannon Estuary. Clare County Development Plan, identifies 3 Regional Seascape Landscape Character Areas described as; *"areas of sea, coastline and land, as perceived by people, the character of which results from the actions and interactions of land with sea through natural and/or human factors."* The Regional Seascape Landscape Character Area is '*Shannon Estuary and Tralee Bay'*. Similar to the LCA's this is further broken down into a 'Seascape Character Assessment' identifying more geographically specific areas. The study area is contained within LCA10 *'The Lower Shannon Estuary'*.

Landscape Sensitivity

In terms of landscape sensitivity, the Clare County Landscape Character Assessment provides an objective appraisal of the various landscapes of County Clare and determines their relative values and susceptibilities, which translates closely to landscape sensitivity and sets out a basis for landscape policies and objectives. These are divided into 'settled landscapes' (typically more robust), working landscapes'(typically more robust), and 'heritage landscapes (more sensitive).' Definitions of these are outlined below;

- *Settled landscapes - areas where people live and work;*
- *Working Landscapes – intensively settled and developed areas within Settled Landscapes or areas with a unique natural resource;*

- *Heritage Landscapes: areas where natural and cultural heritage are given priority and where development is not precluded but happens more slowly and carefully*

Within the study area, the OCC is contained entirely within a *'settled landscape'*. A '*heritage landscape'* area is identified in the study area to the west, along the coastline 2km west of the OCC. The land bordering the coastline south of the N67 national route and the area containing the Moneypoint Power Station are identified as 'working' landscapes. The remainder is identified as a 'settled landscape'.

Scenic Designations

Table 27-9 Landscape context surrounding the OCC at Ballymacrinan

Scenic Views/ Designation- OCC			
Scenic Designation	**Details in relation to the OCC**	**Sensitivity**	**Relevance to the OCC**
Wild Atlantic Way	Part of the Wild Atlantic Way (WAW) is located within the study area, 570m south of the OCC at its nearest point. This traverses east to west along the coast before diverting inland joining the N67 where it traverses south towards the coastline. It ends immediately west of the Moneypoint Power Station.	High	The Wild Atlantic Way is generally concerned with coastal views and in the relevant section it is oriented south towards the Shannon Estuary in the opposite direction of the OCC with rolling farmland between. An 820m section of the WAW traverses northeast to southwest through the OCC Study Area and even though visibility is likely to be limited, it is a sensitive visual receptor, and representative viewpoints have been selected (VP4 and VP9) to assess visual effects from it.

27.5.3 Connection Point

The proposed OCC will connect to the national grid at the existing Moneypoint 220kV Substation, on the northern side of the Moneypoint 220kV Substation, which is located in the southeast portion of the study area. Moneypoint Power Station is Ireland's largest generation station, located immediately along the N67 road on the Shannon Estuary with an installed thermal capacity of 915MW. The power station comprises wind turbines, large-scale industrial buildings and electrical infrastructure located on an extensive site on the north bank of the Shannon Estuary (Figure 27-7). Mature woodland vegetation, the Shannon Estuary, pastoral farmland and other industrial activity make up the land use in the surrounding vicinity. Although the OGC will connect to Moneypoint 220kV Substation, no additional above ground infrastructure will be incorporated as part of this Project and no further assessment will be required.

Figure 27-7 Landscape context surrounding the Connection Point at Moneypoint 220kV Substation.

27.6 Likely Significant Effects and Associated Mitigation Measures

27.6.1 Do Nothing Scenario

The do-nothing scenario considers the likely future changes to the receiving environment in respect of each of the development features if the Project does not proceed. In the case of all aspects of the Onshore Site, a do-nothing scenario will result in no change to the baseline environment. However, it should be noted that Money Point Power Station is a hub for electrical infrastructure on the west coast of Ireland and will continue to be subject of proposed expansion and ancillary grid related developments as the Irish Grid is bolstered to meet the needs of renewable energy generation and distribution.

Even in the context that the Project does not proceed, there will be pressure for similar development in the area surrounding Money Point Power Station. However, the Project not proceeding will not result in significant landscape and visual effects.

27.6.2 Construction Phase Landscape and Visual Effects

The construction phase landscape effects and visual effects will be considered together as they are similar in terms of the effects on landscape character and visual amenity. Furthermore, operation and maintenance phase landscape and visual effects relating to the OGC will not be considered further as they will be below ground with little surface expression and with no potential to generate significant

effects. Thus, only the OCC element will be carried through to operation and maintenance assessment and this will be divided between landscape effects and visual effects.

27.6.2.1 Onshore Landfall Location and Onshore Grid Connection

The proposed OGC primarily runs along the existing road network, underground across private farmland and across the Kilrush Golf Course on the 22.3km journey from the OLL at Killard to the OCC at Ballymacrinan and then onto Moneypoint 220kV Substation.

The construction phase of the OLL aspect of the development will involve subsurface trenchless technology to allow connection between the marine section of the cable and the TJB, which will be located within an area of farmland 1km west of White Strand Beach. The TJB itself, approximately 20m x 5m in plan dimensions, will comprise sub-surface chambers requiring excavation for its instalment. While its surface expression during the construction phase will be an excavation, its above-ground expression during the operation and maintenance phase will be a surface level concrete structure with small access cover to a communications cabinet. The open-cut trench will be fully reinstated following construction along with the temporary construction compound.

Temporary construction-related activity associated with OLL, and cable vessel may be discernible for several kilometres along the coastline. However, due to the temporary and localised nature of the construction works and because there will be almost no surface expression of the underground joint bay chamber once installed during the construction stage, it is not considered that construction or operation and maintenance stage effects have potential to be significant.

From the TJB, the construction method for the OGC to the OCC and on to the connection point at Moneypoint 220kV Substation will primarily involve open cut trenching of existing road surfaces and agricultural land to lay the ducting system for the cables and construction of periodic concrete joint bays. As a second stage, the cables will be installed into the ducting system using pulling equipment. There will be associated machinery and worker activity at the section of OGC being installed as well as site fencing, temporary storage of excavated material and laydown areas for construction materials. The progress of the works will be reasonably rapid at a typical rate of 50m per day and thus, the nature of the work is reasonably intensive, but transient (continually moving). Because the work is transient the effects will typically be dispersed and temporary. Furthermore, construction and maintenance work within road corridors is a common occurrence with little attention likely to be paid by passers-by as to the nature of the work. Some sections of the OGC will run through open countryside, cross approximately 11 no. watercourses and cross through the Kilrush Golf Course.

The construction of laydown areas and associated access tracks, where hard stands and tracks are not already in existence, will predominantly involve the clearance and temporary storage of topsoil coupled with the introduction of hardcore fill in its place. There may be some minor clearance of vegetation required to facilitate the likes of gateway accesses. Such construction works will not appear out of the ordinary in close proximity to the road network and will result in temporary and dispersed effects along the OGC. As with the cable trench itself, once the construction stage is complete, temporary laydown areas will be fully reinstated to their former condition. It should be noted that along road sections of the proposed OGC, the only vegetation loss will be roadside vegetation at the base of hedgerows and not the hedgerows themselves. Any instances where sections of hedgerows are lost to any aspect of the Onshore Site are fully assessed in Chapter 20: Terrestrial Biodiversity.

The working corridor in open ground will be wider than within typical road sections because there is generally more space available. The trenching process will otherwise be much the same but including aggregate access tracks, where these are not already in existence, to deliver and remove materials as necessary. These will be kept in place to serve as maintenance tracks along the OGC. Such construction works are more out of the ordinary than works within the road corridor and have the potential to result in temporary / short term effects on the prevailing ground cover and also the loss of some minor sections of vegetation. Construction impacts on landscape character as well as visual impacts are also likely to be more noticeable within the open countryside and Kilrush Golf Course than

within the road corridor due to increased levels of activity and machinery in areas where this is not commonplace or expected and where people enjoy visual amenity of countryside views from roads, residences and recreational areas. At watercourse crossings, depending on circumstances and sensitivities, the OGC will be either trenched through the watercourse or run underneath using horizontal directional drilling (HDD). The latter is likely to be more intensive and time consuming at the crossing point but ultimately result in less physical impacts on the water course in question.

In terms of sensitivity, road corridors themselves are not considered to be a sensitive landscape receptor as they are man-made linear features that can be readily reinstated. As visual receptors, road users are susceptible to the changes in the landscape they pass through and views from the road, particularly in scenic areas. However, they are not as susceptible to temporary visual change within the road corridor itself. Local residents who view the road corridor from their dwellings are also susceptible to visual change, but generally beyond or away from the road corridor and not when the visual change relates to brief periods of road works. For these reasons, for the vast majority of the OGC route being laid under existing road surfaces the sensitivity of the receiving landscape as well as visual receptors is deemed to be Low. For those infrequent sections of the OGC which run through open countryside, the rural landscape and those that enjoy views across it are more susceptible to construction stage impacts. However, this is still a productive and populated area and therefore landscape sensitivity and the sensitivity of visual receptors is deemed to be in the order of Medium to Medium-low. Given the relatively modest scale of the proposed OGC construction works and the fact that it is transient and temporary, the magnitude of impact is deemed to be Low. Thus, the highest-level combination of impact magnitude and receptor sensitivity is Low and Medium respectively resulting in significance of no greater than Slight in open countryside areas and Slight-imperceptible within road corridors. The quality of such effects will be Negative and is Not a Significant effect.

In the instance of the Kilrush Golf Course, the OGC navigates through a 900m section of woodland that is internal to the course, albeit the OGC will run along an existing access track. Some trees will have to be removed although it should be noted that most of the trees in this area are suffering from ash dieback disease. The trenching works will have some further potential to disturb the root zone of the track-side trees, but in a context where existing compaction and the surface materials of the track are a deterrent to root growth / penetration relative to the open ground in other directions. In this instance, the construction phase will mainly be noticeable to golfers but is still contained within the woodland itself with little visibility of the works beyond the enclosed working corridor. Receptor sensitivity within the golf course is deemed to be Medium with an impact magnitude of Medium-low resulting in a significance of Moderate-slight with a Negative quality and is Not a Significant effect.

27.6.2.2 Onshore Compensation Compound

The OCC will be cleared and levelled resulting in substantive disturbance to the landcover and the prevailing landform profile. The construction of the OCC will involve considerable HGV movements carrying material both to and from the Onshore Site and will last for approximately 21 months. During that period, there will be a high level of activity from people and construction machinery on site, there will be temporary stockpiling of excavated materials and building material, worker welfare facilities and temporary site lighting. Permanent security fencing and perimeter post and rail fencing will be erected, and a terrace will be formed on the eastern side of the Onshore Site between the OCC and the road using excavated topsoil. Together these elements will present as considerable scale construction works, and related landscape and visual effects will be at their greatest when the Project is nearing completion. This is on the basis that construction related features and activities will be present at the same time as the emerging, partially completed structures generating an increased intensity built development in combination with construction related activity and visual clutter.

The landscape sensitivity of the Onshore Site itself is considered to be Medium-Low as it is a robust, working rural landscape that is heavily influenced by the existing Moneypoint Power Station a short distance to the southeast. Although it is in proximity to the Shannon Estuary, with the coastline to the south and southwest presenting with sensitive scenic and naturalistic values that are more susceptible to change. This is reinforced by the '*heritage*' landscape designation from the Clare County Development

Plan and Wild Atlantic Way scenic route that both occur in the south and southwest periphery of the study area. However, the Onshore Site is in productive agricultural grazing and is more clearly influenced by the utilitarian infrastructure to the southeast and the general agricultural farmland setting that surrounds it. The northern portion of the study area also presents with a more traditional pastoral character including occasional blocks of conifer forestry. The outskirts of Kilrush settlement and the Kilrush Forest Recreational Area, which is of local recreational value, occupy the northwest of the study area. On the basis of these reasons, landscape sensitivity and the sensitivity of visual receptors is considered to be High-medium for the coastal areas to the south and southwest of the OCC and Medium-low for the remainder of the study area.

Due to scale and intensity balanced against the short-term duration the construction stage landscape effects and visual effects within the Onshore Site are deemed to be of a High-medium magnitude. When coupled with the site's Medium-low degree of sensitivity, the resulting significance is deemed to be Moderate and Negative. However, beyond approximately 500m of the site, the level of construction stage impacts will begin to reduce to Medium and Low at increasing distances as the construction works becomes a smaller component of the wider landscape context. The significance of effect will therefore reduce to Moderate-slight and Slight at increasing distances beyond the Onshore Site out to the extent of the study area and is Not a Significant effect.

27.6.3 Operation and Maintenance Phase Landscape Effects

27.6.3.1 Onshore Landfall Location and Onshore Grid Connection

Once operational, the only above ground expression of the OLL will be the manhole and surface level concrete casing of the TJB in a farmed field along with the associated maintenance access track, which will appear as any other farm track in the area. It is not considered that there will be any material impact on landscape character or visual amenity from these OLL features. Similarly, once reinstated, there will be little surface expression from the onshore cable route other than occasional surface level maintenance access covers (manholes) and these will be predominantly within the road corridor. Any sections of hedgerow or other vegetation that have been removed for construction purposes will be reinstated on a like-for-like basis, except for the avoidance of woody plant material directly above the cable itself. Again, there will be no material impacts on landscape character or visual amenity form these features.

For the reasons outlined above, operation and maintenance phase landscape and visual effects arising from the OLL and OGC will be of an Imperceptible magnitude and Neutral quality and are Not Significant.

27.6.3.2 Onshore Compensation Compound

Once operational, the OCC will have a large, partly enclosed / partly externalised electrical facility. Excluding access track, the OCC will occupy a compound of approximately 254m x 226m, external electrical componentry of heights will generally be up to approximately 5m above ground level but also include a slender 18.5m tall telecommunications pole and 15m high lightning masts. A cluster of four buildings of differing levels are spread across the western side of the Onshore Site compound, but with an uppermost roof height of 16.7m above FFL. Two substantial buildings occupy the southwestern quadrant of the compound and will consist of roof heights up to 16.7m for the 220kV Gas Insulated Switchgear (GIS) OCC and the Carrowdotia 220kV GIS ESB Substation. Both of these buildings have external dimensions of 49m x 18.5m. An intense and cluttered array of external electrical components occupy the central part of the compound along with the 30x22m Statcom building (7.6m tall structure) in the northeast part of the compound. The SCADA/ESBN MV building occupies the southeast quadrant of the compound and consists of a 6.1m roof height. The Onshore Site will host a total of 15 car parking spaces located beside the buildings. The facility will also host ancillary control/storage buildings, car parking and circulation areas. There will be external 1.4m high post and rail fencing around the wider Onshore Site with 2.6m high steel palisade security fencing around the internal

compound. Landscaping in the form of planted screen berms is proposed around the perimeter of the compound and a woodland mix is proposed on the eastern part of the OCC where there is the most potential for views into the site, as illustrated in Appendix 27-1. This planting forms part of the biodiversity improvement planting proposed in the Chapter 20: Terrestrial Biodiversity. The OCC is the only substantial above-ground component of the onshore elements of the Onshore Site and has the potential to influence the surrounding landscape character and views for several kilometres.

Together, the elements that comprise the OCC present as a substantial industrial facility, albeit within a landscape where large-scale electrical infrastructure is an established activity in the near vicinity. The OCC is contained within a low-lying agricultural site, surrounded by a robust working landscape. The large-scale industrial and electrical facility of Moneypoint Power Station to the southeast has a notable influence on the character of the Onshore Site and wider study area. Although the western side of the study area encompasses a pleasant coastline, the Onshore Site itself is a robust rural landscape, influenced by the surrounding agricultural farmland and anthropogenic activity to the southeast. Nonetheless, the OCC represents a substantial increase in the scale and intensity of built development in the immediate locality, which will detract from the existing pastoral character of the Onshore Site and immediate surrounds. The magnitude of impact on landscape character will be greatest within approximately 1km of the Onshore Site where the OCC makes a noticeable contribution to the landscape setting /land use mix and therefore impacts on landscape character. This effect is considered to be of a Medium magnitude.

Beyond approximately 1km, the OCC represents a smaller component of the broader landscape fabric of the study area. Where visible from beyond 1km of the site, the OCC will most likely be interpreted as relating to the existing Moneypoint 220kV Substation to the southeast. The Moneypoint Power Station will continue to present as the larger more prominent feature within the wider landscape context. Thus, the influence on landscape character is strongly diluted to a Low and Negligible magnitude of impact with increasing distance beyond the immediate site context.

As previously determined, the landscape sensitivity of the Onshore Site and surrounding agricultural areas is deemed to be Medium- Low, but with the coast to the southeast considered to be of High-medium sensitivity. Weighing the magnitude of impact against receptor sensitivity, the highest significance of effect is deemed to occur within the immediate surrounds to the northeast and southeast of the Onshore Site within 1km, where the Medium-low sensitivity combines with a High-medium magnitude of impact to generate Moderate significance of a Negative quality. In all other instances, the significance of landscape impact during the operation and maintenance phase will be Moderate-slight or lower due the balance of sensitivity and magnitude and is Not a Significant effect.

27.6.4 Operation and Maintenance Phase Visual Effects

As visual effects are based on changes to views experienced by people, it is important to establish parts of the study area from which the development may be visible and which sensitive receptors occur in these areas. It is also useful to scope-out those receptors that will not have any potential visibility of the OCC (due to terrain screening). In the first instance this is determined using Zone of Theoretical Visibility (ZTV) mapping in a bare-ground scenario using a Digital Terrain Model (DTM) for the full OCC Study Area. Thereafter, a ZTV map based on a Digital Surface Model (DSM) can determine how much influence existing screening in the form of vegetation and buildings will screen the OCC (see Figure 27-5 and 27-6 for these respective ZTV maps).

27.6.4.1 Zone of Theoretical Visibility (ZTV) Maps

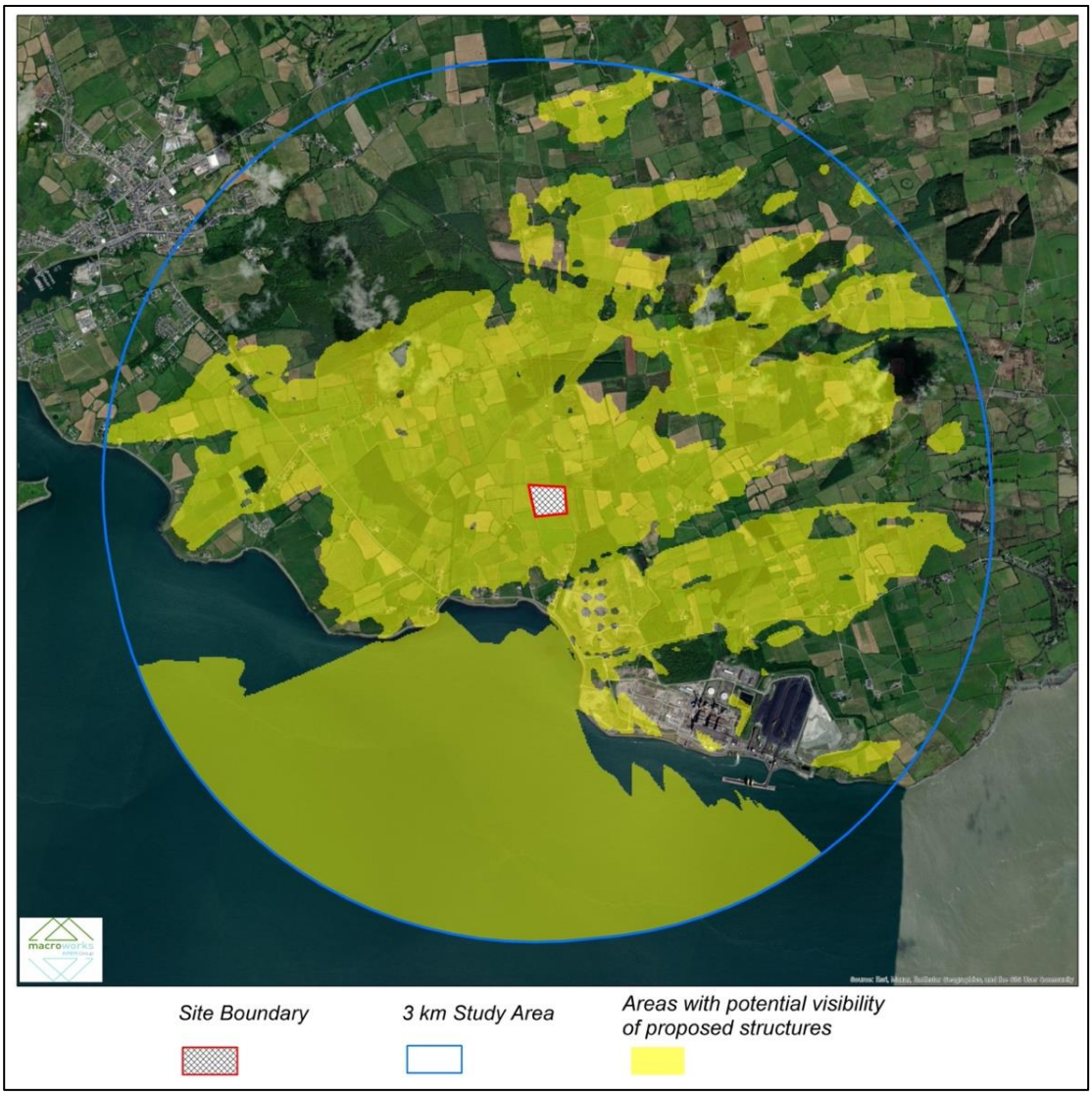

Figure 27-8 Bare-ground ZTV map of the OCC Study Area.

The most important point to make in relation to the bare-ground ZTV map is that it is a theoretical overrepresentation of what viewers might see of the OCC site, because it does not account for visual screening by the likes of vegetation and buildings which can be considerable in a rural context like this. It is perhaps more useful for determining areas that will definitely not have visibility of the OCC than determining those that have some theoretical potential. As can be seen from the bare-ground ZTV map (Figure 27-8):

- There is relatively comprehensive potential for visibility of the main OCC buildings from within 1km of the site, particularly to the north, west and east. Visibility is more limited to the south due to a series of undulating topography along the coastline just to the south of the site.
- Beyond 1-2km to the south, visibility re-emerges in the Shannon Estuary. To the north visibility is limited beyond 2km of the Onshore Site aside from some partial views in the northeast. To the northwest intervening landform screens the OCC entirely.
- It should be noted that there is no potential for visibility from the settlement of Kilrush and there is little intervisibility between the Onshore Site and Moneypoint Power Station.
- The Wild Atlantic Way is entirely screened by intervening landforms across the initial 1.5km stretch along the coastline to the west of the site, however as it diverts north, visibility re-

emerges which continues as it joins the N67 national route. Intervening landform then screens any further visibility from the WAW as it comes within 1km of the site.

Figure 27-9 Digital Surface Model (DSM) based ZTV map 3km radius around.

The DSM-based ZTV map is a more realistic representation of actual visibility than its DTM-based counterpart as it takes account of screening by surface features such as vegetation and buildings. As can be seen from the DSM-based ZTV map (Figure 27-9):

- There is a considerable reduction in visibility throughout the entire study area, visibility of the main OCC building is now contained within the immediate surrounds of the Onshore Site and the estuary in the southern portion of the study area.
- A notable area of existing vegetation located approximately 700m to the west of the site, buffers the majority of the N67 which contains a portion of the Wild Atlantic Way from any visibility besides some fleeting views. Another notable patch of forestry 500m north limits any further visibility beyond this.
- The comprehensive network of hedgerows through the rural landscape aids in limiting views from residential dwellings. Residual visibility is often intercepted with fleeting linear bands of no visibility illustrated by the shard pattern in the ZTV. This is reflective of the rural setting and is typically due to breaks in hedgerows and gateways. Any potential views in this instance will therefore be brief and not likely to detract from visual amenity to a notable degree.

27.6.4.2 Representative Viewpoints

Based on the receptor categories and selection criteria outlined in Section 27.4.3 coupled with the extent of OCC visibility highlighted by the ZTV maps the following representative viewpoints have been selected for the operation and maintenance phase visual impact assessment of the OCC. Please see Table 27-10 below for viewpoint locations relevant to the OCC. Please see Figure 27-10 below for an aerial overview of viewpoints for the operation and maintenance phase visual impact assessment of the OCC.

Table 27-10 Viewpoint Locations Relevant to the OCC

Viewpoint Locations relevant to the OCC			
VP No.	**Location**	**Viewing distance**	**Viewing direction**
VP1	Vandeleur Walled Garden & Visitor Centre Car Park at Kilrush Demesne	2.4km	SE
VP2	Kilrush Forest Recreational Area at Kilrush Demesne	1.8km	SE
VP3	Path in Kilrush Forest Recreational Area	1.4km	SE
VP4	N67 view from Wild Atlantic Way	1.6km	E
VP5	Local road northwest of Onshore Site at Dysert	0.865km	SE
VP6	T-Junction on local road northeast of Onshore Site at Clooneylissaun	1.3km	SW
VP7	Local road northeast of Onshore Site at Clooneylissaun	0.77km	SW
VP8	Local road southeast of Onshore Site at Ballymacrinay	0.153km	NW
VP9	N67 southwest of Onshore Site at Moyne	0.822km	NE
VP10	N67 southeast of Onshore Site at Carrowdotia North	1.45km	NW

Figure 27-10 VP Location Map.

27.6.4.3 Visual Impact Assessment at representative Viewpoints

Visual impacts are assessed in detail at each of the representative viewpoints in in Table 27-11 below, with the results summarised thereafter. The assessment in Table 27-11 considers visual impacts both before and after mitigation screen planting establishment (where relevant).

Table 27-11 Visual Impact Assessment Table

VP11	Nature of Visual Receptor / Characteristics of Existing View	Visual Receptor Sensitivity	Visual impact Magnitude (Pre and Post Mitigation)	Significance / Quality / Duration of Effect
VP1	**Vandeleur Walled Garden & Visitor Centre Car Park at Kilrush Demesne** This is a heavily enclosed view to the southeast observed from the carpark at Kilrush Demesne. It is afforded to tourists visiting the Vandeleur Walled Garden & Visitor Centre and also to recreationalists using the Kilrush forest. A low stone wall curves around the asphalt carpark in the foreground. An open mown lawn is located on the adjacent lands of the wall. The background is dominated by a mature forest in the near distance.	**Medium**	The wireline view shows that the OCC will not be visible from here due to intervening terrain screening. Consequently, the magnitude of visual impact is deemed to be **Negligible,** and the quality of effect is **Neutral** by default.	**Imperceptible /** **Neutral /** **Long-term** **Not Significant**
VP2	**Kilrush Forest Recreational Area at Kilrush Demesne (1)** This is an enclosed southeast facing view from a footpath/cycle track within the Kilrush Forest that is predominantly afforded to recreationalists. The view is contained to the east by dense shrubs and tall woodland species adjacent to the path. The western side of the view contains two park benches and clusters of scrubby vegetation. A dense conifer forestry block encompasses the remainder of the view in the near distance.	**Medium**	The wireline view shows that the OCC will not be visible from here due to intervening terrain screening. Consequently, the magnitude of visual impact is deemed to be **Negligible,** and the quality of effect is **Neutral** by default.	**Imperceptible /** **Neutral /** **Long-term** **Not Significant**
VP3	**Kilrush Forest Recreational Area at Kilrush Demesne (2)**	**Medium**	The wireline view shows that the proposed OCC will not be visible from here due to intervening terrain screening.	**Imperceptible /**

	This is a southeasterly view from within the southernmost part of Kilrush Forest and is heavily filtered by foreground vegetation. The view is predominantly afforded to recreationalist walking and biking through the forest. The view contains clumps of dead vegetation and groundcover in the immediate foreground surrounded by densely planted woodland species. Gaps through the trees allow glimpse views of an open pasture in the distance. Distant views of a mountain range can be seen in the far background.		Consequently, the magnitude of visual impact is deemed to be **Negligible,** and the quality of effect is **Neutral** by default.	**Negative /** **Long-term** **Not Significant**
VP4	**N67 view from Wild Atlantic Way** This is an oblique view from the N67 national road that is afforded to several nearby dwellings on the adjacent local road and also to users of the N67. This part of road is included as part of the Wild Atlantic Way (WAW) albeit sensitive views are orientated towards the south. The east facing view is contained to the left by a two-storey dwelling in the foreground that is partially screened by a hedge. A roughly grazed pasture occupies majority of the view and is filled with sporadic patches of scrub and tussock. A notable block of conifer forestry cloaks the land in the far southeast. Several wind turbines, and tall industrial plants from the Moneypoint Power Station rise above the tree tops to the east.	**High-medium**	The wireline view shows that the OCC will not be visible from here due to intervening terrain screening. Consequently, the magnitude of visual impact is deemed to be **Negligible,** and the quality of effect is **Neutral** by default.	**Imperceptible /** **Neutral /** **Long-term** **Not Significant**
VP5	**Local road northwest of Onshore Site at Dysert** This is an open southeast facing view from a local road to the north of the site. This view is	**Medium-low**	The OCC in the context of the wind turbines and other built infrastructure from the Moneypoint Power Station a short distance beyond. Although the OCC will be visible the	**Moderate-slight /** **Negative /**

	appreciated by a cluster of rural dwellings located in the near vicinity. It looks over a roughly grazed pasture with clumps of reeds and scrub. A block of conifer forestry contains the view to the east. Views of two tall chimneys from Moneypoint Power Station are presented alongside a cluster of wind turbines. Towards the southwest, distant views of the Shannon Estuary can be seen. This view depicts a combination of anthropogenic and rural activity.		recessive colour scheme of green/ grey horizontal bands is effective in reducing its visual prominent, particularly the light tone of the upper section seen against the backdrop of sky. Furthermore, due to the alignment of the view, the OCC buildings blend with the industrial / utilitarian backdrop of the Moneypoint Power Station and its associated turbines. In this respect, the OCC represents an intensification and slight extension of industrial built form in this part of an otherwise rural vista. On balance of these reasons, the magnitude of visual impact is considered to be **Medium-low** prior to the establishment of mitigation planting. An overview of the mitigation planting is provided in Appendix 27-1: Landscape Management Plan. After the proposed mitigation planting has established, although the OCC building will remain visible it will appear to be better integrated into the existing field network, however, will continue to endure a **Medium-low** impact and of a **Negative** quality due to the residual visibility of the more prominent upper sections of the structures.	**Long-term** **Not Significant**
VP6	**T-Junction on local road northeast of Onshore Site at Clooneylissaun** This is an enclosed view taken from a local road that is afforded to a cluster of residential dwellings, this southwest facing view is contained to the west by a row of woodland scrub with a nearby dwelling to the southwest, A lowland pasture with clusters of tussocks and scrub occupies the foreground. There is a notable patch of conifer forestry to the southwest that cloaks a rolling hill. The background is made up of forested slopes in the distance.	**Medium-low**	The wireline view shows that the OCC will not be visible from here due to intervening terrain screening. Consequently, the magnitude of visual impact is deemed to be **Negligible,** and the quality of effect is **Neutral** by default.	**Imperceptible /** **Neutral /** **Long-term** **Not Significant**

VP7	**Local road northeast of Onshore Site at Clooneylissaun** This is an open view from a section of the local road immediately north of the OCC. This south facing view represents several nearby residential dwellings to the north and also local road users. The view encompasses a semi-open pasture with sporadic clusters of scrub dispersed across it. The view is contained to the southwest by a row of Pine trees and a scrubby hedgerow in the distance. Further rows of Pine trees can be seen in the distance to the south. Although this view has an overarching rural character it is not intensively managed.	**Medium-low**	The OCC presents at a substantial scale from this close location. External electrical infrastructure presents to the fore and to the right of the two more prominent GIS substation buildings, which are aligned from here to the extent that only a glimpse of the further one is afforded behind the nearer one. The recessive colour scheme with a lighter tone to the top and darker green tones towards the base of the GIS buildings is effective at reducing the perceived scale and massing of the structures. However, the facility still represents a distinct change to the southerly vista and a marked increase in the scale, intensity and diversity of built development in this typical rural scene. For these reasons, the magnitude of visual impact is considered to be **High-medium** prior to the establishment of mitigation planting. After the proposed mitigation planting has established, the majority of the OCC building and surrounding elements will be screened by the proposed planting. However, the top of the nearest GIS building will remain visible as will several lightning masts. The proposed mitigation planting will also contribute to further enclosure and foreshortening of the view. Overall, the post-mitigation magnitude of visual impact is deemed to be **Medium** and of a **Negative** quality.	**Pre-mitigation** **Moderate /** **Negative /** **Long-term** **Post-mitigation** **Moderate-slight /** **Negative /** **Long-term** **Not Significant before or after mitigation**
VP8	**Local road southeast of Onshore Site at Ballymacrinan** This is an enclosed oblique view taken immediately south of the OCC approximately 410m from VP7. The northwest facing view is	**Medium-low**	Similar to VP7, the OCC presents at a relatively close and substantial scale on the skyline from this location. The two buildings are stacked alongside each other in the middle distance of this view. The layered green/grey hues of the building are recessive in relation the sky and the vegetated	**Pre-mitigation** **Moderate /** **Negative /**

	afforded to some nearby dwellings to the south and also to local road users. The view takes in a scrubby roadside to the north with views of an open pasture over a farm gate to the west. The view is contained to the east by another scrubby roadside. Vegetation and a forestry block in the near distance to the north encompass the remainder of the view.		landscape below. However, the OCC facility introduces a new large / high intensity industrial feature into what is primarily a quiet rural landscape. For these reasons, the magnitude of visual impact is considered to be **High-medium** prior to the establishment of mitigation planting. Once the proposed mitigation planting has established, much of the buildings will be screened and the OCC will appear more integrated into the existing landscape pattern. However, the tops of both buildings will remain visible, albeit in a more recessive way. Thus, the magnitude of visual impact is deemed to reduce to **Medium** and of a **Negative** quality.	**Long-term** **Post-mitigation** **Moderate-slight / Negative / Long-term** **Not Significant before or after mitigation**
VP9	**N67 southwest of Onshore Site at Moyne** This is a northeast facing view observed from the N67 on the coastline. The view offers degrees of containment generated by vegetation in the middle distance. This is a sensitive view as it forms part of the Wild Atlantic Way (WAW), albeit susceptible views are oriented toward the coast in the opposite direction. This view is afforded to road users driving the WAW. A similar view will be experienced by several nearby residential receptors. The view encompasses an open pasture in the foreground with clusters of rushes in the low-lying levels of the pasture. The view is contained to the west by a mixed hedgerow which extends around to the east containing the rest of the pasture. A dual store dwelling occupies the northeast part of the view. Although views to the	**High-medium**	The wireline view shows that the OCC will not be visible from here due to intervening terrain screening. Consequently, the magnitude of visual impact is deemed to be **Negligible,** and the quality of effect is **Neutral** by default.	**Imperceptible / Neutral / Long-term** **Not Significant**

	south are considered to be susceptible with a high degree of visual amenity, this view depicts a relatively typical rural setting.			
VP10	**N67 southeast of Onshore Site at Carrowdotia North** This is a heavily enclosed view observed immediately north of the Moneypoint Power Station. This northwest facing view is afforded to users of the N67 and a few residential dwellings located nearby. The view encompasses two large scale transmission lines located in the foreground amongst a gently undulating field. A dwelling with a cluster of rural buildings is located at the rear of the field. The view is contained to the northeast by a cluster of Pine and Woodland trees. This scene reflects strong utilitarian themes.	**Medium-low**	The wireline view shows that the OCC will not be visible from here due to intervening terrain and vegetation screening it completely from this location. Consequently, the magnitude of visual impact is deemed to be **Negligible,** and the quality of effect is **Neutral** by default.	**Imperceptible /** **Neutral /** **Long-term** **Not Significant**

As can be seen from the results contained in Table 27-11, VP1, V2, VP3, VP4, VP6, VP and VP10 all have Imperceptible and Not Significant visual effects even prior to the mitigation planting (an overview of the mitigation planting is provided in Appendix 27-1: Landscape Management Plan) due to the high degree of existing screening from these locations. Only from VP5, VP7 and VP8 can the OCC be clearly seen and this indicates that overall, the OCC facility is visually absorbed within the landform and land use patterns of the predominantly rural study area. It also shows that any noticeable effects tend to be localised within the immediate site context or from the rural landscape to the north, rather than the coastal landscape to the south and west. These localised effects are confined to lightly used local roads and the residents they serve, generally within 1km of the site, and only where the absence of intervening screening allows for views towards the OCC.

The highest pre-mitigation visual effects occur at VP7 and VP8 from the local road to the east of the site, which are attributed a Moderate significance and Negative quality of effect due to close and clear views of the OCC facility in heretofore typical rural scenes. VP5, which is further away to the north of the site, but in a similar rural context is attributed a Moderate-slight and Negative effect which is Not Significant.

The proposed mitigation measures, once established, are deemed to reduce the visual impact of the OCC at VP7 and VP8 from Moderate to Moderate-slight. In these instances, the combination of the dispersed colour scheme and perimeter screen planting serves to partially screen and perceptually reduce the scale of the OCC facility whilst helping to assimilate the buildings into the surrounding landscape context. At VP5, although the effects of the proposed mitigation do not obviously reduce the impact of the OCC, the screen planting helps integrate the buildings into the receiving environment that is more cohesive with its surroundings.

27.6.5 Decommissioning Phase

The activities associated with the decommissioning phase will be similar to those associated with the construction phase. Therefore, the landscape and visual impacts of the decommissioning phase should be, as a worst-case scenario, similar to those described and assessed at the construction phase. All of the above ground infrastructure will be removed from the Onshore Site and the host field reinstated to agricultural use. The field to the east that has accepted the spoil from the OCC construction and will be used for biodiversity improvements, will remain undisturbed, as will the native vegetation and screening that has established over the lifetime of the OCC development. As with the Construction Phase, Decommissioning Phase effects are deemed to be Moderate, Negative and Short-term, which is Not Significant.

27.7 Cumulative Effects

The cumulative effects section is concerned with other permitted or proposed projects and does not consider other existing development, which forms the baseline of the main landscape and visual impact assessment, where relevant.

An analysis has been undertaken of all of the permitted and proposed projects contained within the Onshore Site LVIA study area to generate a long list of cumulative projects that the proposed OGC and OCC has the potential to generate significant effects in conjunction with.

27.7.1 Cumulative Effects OGC

In relation to the OGC where the study area includes a 500m buffer from the OLL and alignment of the cable route, there were 26 no. permitted developments identified. The vast majority of these relate to single residential dwellings and related upgrades to same. There is one application for a pitch and putt golf course and two commercial developments within the Tesco car park in Kilrush. There is also

one application for energy related upgrades within the existing Moneypoint Power Station to which the OGC will connect.

On the basis that there will be no material landscape or visual effects from the proposed OGC during its operation and maintenance phase as the onshore cable and associated elements will be flush with or buried beneath reinstated ground, there will be no operation and maintenance phase cumulative effects with any of the identified cumulative developments. Only during the construction phase is there any potential for temporary activity in the form of construction vehicle movements to coincide on the local road network or for stockpiles of materials and heavy machinery from the OGC works to be visible in the same context as materials and machinery from other developments. If there is such a temporal crossover of construction phases between developments, the effects will be temporary in duration and low to negligible in magnitude. This will result in Slight or Imperceptible effects which are Not Significant.

27.7.2 Cumulative Effects OCC

Within the 3km radius OCC portion of the Onshore Site Study Area, there are 37 no. permitted or in-planning developments. As with the OGC cumulative scenario, the vast majority of these cumulative developments relate to small scale single residential developments or residential upgrades. There are also several small scale agricultural and commercial developments / upgrades or retentions. Furthermore, the majority of the cumulative developments are beyond 1km of the OCC site, where the standalone effects of the OCC are generally Slight or Imperceptible and any related cumulative effects could not be significant.

There is only one development of relevant scale that falls within 500m of the proposed OCC and that is a multifaceted energy related development at the Moneypoint Power Station n consisting of a proposed transition and conversion of the station from coal to heavy fuel oil and associated ancillary development. This development is substantially contained within the Moneypoint Power Station itself and the nearest point of its boundary to the proposed OCC (314m) relates to an extensive ash disposal field rather than intense built development. The ash disposal field is on low ground with terrain and vegetation separating it from the proposed OCC such that there will not be any intervisibility between the two developments and they are also of a distinctly different form that will not necessarily be correlated by a viewer. Other than contributing to a general intensification of energy related development within the landscape fabric surrounding Moneypoint Power Station, there will be little in the way of material cumulative effects. Indeed, the cumulative effect between these two developments is not considered to exceed Slight-imperceptible, which is Not a Significant cumulative effect.

27.7.3 Cumulative Effects Summary

On the basis of the reasons outlined in Section 27.7.1 and 27.7.2 it is considered that there will Not be any Significant cumulative landscape or visual effects, and any such effects will be Slight.

27.8 Conclusion

Landscape effects and visual effects have been considered in respect of all onshore aspects of the Project including the OLL, OGC and OCC. There will be construction stage effects from all of the proposed elements, but these will be temporary/short term in duration and for some aspects, including the OGC, Construction Compounds and Laydown Areas there will be no material operation and maintenance phase effects as they will remain underground with the landcover above reinstated.

The only material consideration in terms of permanent operation and maintenance phase landscape and visual effects relates to the OCC at Ballymacrinan. Although this will be a substantial scale electrical infrastructure facility, it is proposed in a robust agricultural landscape setting with existing large-scale electrical infrastructure and industrial activity established in the immediate vicinity at

Moneypoint Power Station and is located in an area indicated as a Rural Area Under Strong Urban Influence in the Clare County Dev Plan 2023-2029.

Ten viewpoints were selected to assess the visual impact of the OCC facility. The highest level of impact is deemed to occur in respect of local receptors on the adjacent road to the east of the OCC (represented by VP7 and VP8). At both of these viewpoints, a clear and close view of the OCC is considered to give rise to a Moderate visual impact in a pre-mitigation scenario. Once the perimeter screen planting has become established and dispersive and recessive colour scheme is applied to the proposed buildings, the significance of impact is considered to reduce to Moderate-slight. This level of effect is Not Significant, either before or after mitigation.

For the reasons outlined above, it is considered that Onshore Site of the Project development will not give rise to any significant landscape or visual effects.