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10.0 LANDSCAPE AND VISUAL

10.1 Introduction

10.1.1 This chapter of the Environmental Impact Assessment Report (EIAR) identifies and assesses the likely significant effects of the Proposed Development (as presented in Chapter 5: The Proposed Development) on the landscape and visual resource of the study area. It identifies the mitigation and compensation measures that will be implemented to prevent, reduce, or offset potential adverse landscape and visual effects or enhance potential beneficial effects, where possible. In the context of this project 'landscape' also includes sub-urban townscape.

10.1.2 This is supported by the following technical documents:

- Appendix 10A – Photomontage Booklet (refer to EIAR Volume II);
- Figure 10.1 Landscape Designations (refer to EIAR Volume III);
- Figure 10.2 Landscape ZTV (refer to EIAR Volume III); and
- Figure 10.3 Viewpoint Location Plan (refer to EIAR Volume III).

10.2 Methodology

Guidance and other Information used in the Landscape and Visual Impact Assessment

10.2.1 The following sources and guidelines were used in the assessment:

- 'Guidelines for Landscape and Visual Impact Assessment', 3rd Edition, 2013, Landscape Institute (UK) & Institute of Environmental Management and Assessment (IEMA) (referred to as GLVIA3 henceforth);
- 'Visual Representation of Development Proposals', Landscape Institute, Technical Guidance Note 06/19, 17 September 2019;
- Environmental Protection Agency (EPA): "Guidelines on the information to be contained in Environmental Impact Assessment Reports", May 2022;
- Galway County Development Plan 2022-2028;
- National Parks and Wildlife Service (NPWS) website http://www.npws.ie/;
- Irishtrails website https://www.sportireland.ie/outdoors/find-your-trails; and
- Descriptions and drawings of the Proposed Development (refer to EIAR Chapter 5: The Proposed Development and EIAR Volume III).

Scope

10.2.2 The Proposed Development consists of for an Open Cycle Gas Turbine (OCGT) plant, acoustic barriers, secondary fuel storage and unloading facility, distillate fuel gantry, water storage tanks, surface water drainage system, gas AGI, electrical substation connection and all associated ancillary development, site works and services ('the Proposed Development') on land within and to the north of Tynagh Power Station in Derryfrench, Loughrea, Co. Galway. A full description of the Proposed Development can be found in Chapter 5: The Proposed Development of this EIAR. The type and

duration of the landscape and visual effects fall within three main stages, those being the construction, operational and decommissioning phases.

10.2.3 The potential construction phase (temporary and of a short duration) effects include:

- Physical effects arising from construction of the Proposed Development on the landscape resource within the Site;
- Effects to landscape character and visual amenity within the wider study area of 5km as a result of changes to elements present within the landscape and/ or visual amenity as a result of construction activities;
- Effects of temporary site infrastructure such as site traffic and construction compounds;
- Effects of partially built Proposed Development in various stages of construction; and
- Cumulative effects of the Proposed Development with other permitted developments of a similar type and scale upon the landscape and visual resource of the study area.

10.2.4 The potential operational phase effects include:

- Effects of the Proposed Development on landscape resources and landscape character, including the perceptual qualities of the landscape;
- Effects of the Proposed Development on views and visual amenity; and
- Cumulative effects of the Proposed Development in combination with other permitted developments of a similar type and scale upon the landscape and visual resource of the study area.

10.2.5 Elements of the Proposed Development will become a long-term feature in the visual amenity of parts of the study area following the completion of construction works. The assessment takes account of this in the determination of residual visual effects.

10.2.6 Galway County landscape designations have been reviewed as part of this assessment. However, given the nature of the development, its location, scale, and setting, it is considered that likely significant effects will occur within the locality of the Site and will not affect the wider landscape character or visual amenity.

10.2.7 The Proposed Development will be decommissioned when it reaches the end of its useful life at some point after 2052. At that time detailed decommissioning procedures will be produced in line with prevailing best practice to ensure that there will be no significant, negative environmental effects from the decommissioning of the Proposed Development. As a result, additional potential impacts and associated effects arising during the decommissioning phase are not anticipated above and beyond those already assessed during the construction phase.

Assessment Process

10.2.8 The assessment is undertaken based on the following key tasks and structure:

- Establishment of the Baseline or receiving environment;
- Appreciation of the Proposed Development; and
- Assessment of effects.

Establishment of the Receiving Environment

10.2.9 A baseline study has been undertaken through a combination of desk-based research and Site appraisal in order to establish the existing conditions, including landscape value, susceptibility and sensitivity of the landscape and visual resources of the study area. Desk based research has involved a review of mapping and aerial photography, relevant planning and policy documents, existing Landscape Character Assessments and other relevant documents and publications.

Assessment of Effects

10.2.10 The landscape and visual impact assessment seeks to identify, predict and evaluate the significance of potential effects to landscape characteristics and established views. The assessments are based on an evaluation of the value and susceptibility, and therefore sensitivity to change and the magnitude of change for each landscape or visual receptor.

10.2.11 The assessment acknowledges that landscape and visual effects change over time as the existing landscape evolves and proposed planting establishes and matures. The assessment therefore reports on likely effects during both construction and operation of the Proposed Development. The visibility of the Proposed Development in the landscape or view will vary according to the existing screening effects of local topography, structures, and buildings, intervening existing vegetation and type and height of the proposed structures.

Study Area

10.2.12 A study area of 5km radius has been set from the Site boundary for the assessment. The study area has been selected to identify potential significant landscape and visual impacts within County Galway (refer to Figure 10.1, EIAR Volume III). The extent of the study area has been identified through the production of a Zone of Theoretical Visibility (ZTV) mapping (refer to Figure 10.2, EIA R Volume III), a review of maps and aerial photographs and site survey data. It is acknowledged that the Proposed Development may be visible from locations beyond the study area of 5km radius and as such it is important to note that the study area defines the area within which potential effects could be significant, rather than defining the extent of visibility.

Effects Scoped Out

10.2.13 It is envisaged that the Proposed Development will have a design life of at least 25 years. It will therefore become a long-term feature in the landscape following the completion of construction works. The assessment takes account of this in the determination of residual landscape and visual effects.

10.2.14 Effects arising from the process of decommissioning of the Proposed Development are considered to be of a similar nature and duration to those arising from the construction process and therefore have not been considered separately in this chapter. Where this assessment refers to potential construction effects of structures, these are also representative of predicted decommissioning effects.

Landscape Effects

10.2.15 Landscape effects describe the impact on the fabric or structure of a landscape or landscape character.

10.2.16 The assessment of landscape effects firstly requires the identification of the components of the landscape. The landscape components are also described as landscape receptors and comprise the following:

- Individual landscape elements or features;
- Specific aesthetic or perceptual aspects; and
- Landscape character, or the distinct, recognisable, and consistent pattern of elements (natural and man-made) in the landscape that makes one landscape different from another.

10.2.17 The assessment identifies the interaction between these components and the Proposed Development during the construction and operational phases. The condition of the landscape and any evidence of current pressures causing change in the landscape will also be documented and described.

Landscape Value

10.2.18 Landscape value is frequently addressed by reference to international, national, regional, and local designations, determined by statutory and planning agencies. However, absence of such a designation does not necessarily imply a lack of quality or value. Factors such as accessibility and local scarcity can render areas of nationally unremarkable quality, highly valuable as a local resource. The quality and condition are also considered in the determination of the value of a landscape. The evaluation of landscape value is undertaken with reference to the definitions stated in the Table 10.1.

Table 10.1: Landscape Value

LANDSCAPE VALUE	CLASSIFICATION CRITERIA
High	Nationally designated or iconic, unspoilt landscape with few, if any, degrading elements.
Medium	Regionally or locally designated landscape, or an undesignated landscape with locally important landmark features and some detracting elements.
Low	Undesignated landscape with few if any distinct features or with several degrading elements.

Landscape Susceptibility

10.2.19 Landscape susceptibility relates to the ability of a particular landscape to accommodate the Proposed Development. Landscape susceptibility is appraised through consideration of the baseline characteristics of the landscape, and in particular the scale or complexity of a given landscape.

10.2.20 The evaluation of landscape susceptibility is undertaken with reference to a three-point scale, as outlined in the Table 10.2.

Table 10.2: Landscape Susceptibility Criteria

LANDSCAPE SUSCEPTIBILITY	CLASSIFICATION CRITERIA
High	Small scale, intimate or complex landscape considered to be intolerant of even minor change.
Medium	Medium scale, more open or less complex landscape considered tolerant to some degree of change.
Low	Large scale, simple landscape considered tolerant of a large degree of change.

Landscape Sensitivity

10.2.21 Landscape sensitivity to change is determined by employing professional judgment to combine value and susceptibility in order to determine landscape sensitivity, with reference to the table outlined below.

Table 10.3: Landscape Sensitivity to Change Criteria

LANDSCAPE SENSITIVITY	CLASSIFICATION CRITERIA
High	Landscape characteristics or features with little or no capacity to absorb change without fundamentally altering their present character. Landscape designated for its international or national landscape value or with highly valued features. Outstanding example in the area of well cared for landscape or set of features that combine to give a particularly distinctive sense of place. Few detracting or incongruous elements.
Medium-High	Landscape characteristics or features with a low capacity to absorb change without fundamentally altering their present character. Landscape designated for regional or county-wide landscape value where the characteristics or qualities that provided the basis for their designation are apparent or a landscape with highly valued features locally. Good example in the area of a well-cared for landscape or set of features that combine to give a clearly defined sense of place.
Medium	Landscape characteristics or features with moderate capacity to absorb change without fundamentally altering their present character. Landscape designated for its local landscape value or a regional designated landscape where the characteristics and qualities that led to the designation of the area are less apparent or are partially eroded or an undesignated landscape which may be valued locally – for example an important open space. An example of a landscape or a set of features which is relatively coherent, with a good but not exceptional sense of place - occasional buildings and spaces may lack quality and cohesion.
Medium-Low	Landscape characteristics or features which are reasonably tolerant of change without determent to their present character. No designation present or of little local value. An example of an un-stimulating landscape or set of features; with some areas lacking a sense of place and identity.
Low	Landscape characteristics or features which are tolerant of change without determent to their present character. An area with a weak sense of place and/ or poorly defined character/ identity. No designation present or of low local value or in poor condition. An example of monotonous unattractive visually conflicting or degraded landscape or set of features.

Magnitude of Landscape Change

10.2.22 Magnitude of change is an expression of the size or scale of change in the landscape, the geographical extent of the area influenced and the duration and reversibility of the resultant effect. The variables involved are described below, as per GLVIA3:

- The extent of existing landscape elements that will be lost, the proportion of the total extent that this represents and the contribution of that element to the character of the landscape;
- The extent to which aesthetic or perceptual aspects of the landscape are altered either by removal of existing components of the landscape or by addition of new ones;
- Whether the effect changes the key characteristics of the landscape, which are integral to its distinctive character;
- The geographic area over which the landscape effects will be felt (within the site itself; the immediate setting of the site; at the scale of the landscape type or character area; on a larger scale influencing several landscape types or character areas); and
- The duration of the effects (short term, medium term or long term) and the reversibility of the effect (whether it is permanent, temporary or partially reversible).

10.2.23 Changes to landscape characteristics can be both direct and indirect. **Direct change** occurs where the proposed development will result in a physical change to the landscape within or adjacent to the site. **Indirect changes** are a consequence of the direct changes resulting from the proposed development. They can often occur away from the site (for example, off-site construction staff parking) and may be a result of a sequence of interrelationships or a complex pathway (for example, a new road or footpath construction may increase public access and associated problems such as littering). They may be separated by distance or in time from the source of the effects. The magnitude of change affecting the baseline landscape resource is based on an interpretation of a combination of the criteria set out in Table 10.4.

Table 10.4: Magnitude of Landscape Change Criteria (Landscape Effects)

MAGNITUDE OF LANDSCAPE CHANGE	CLASSIFICATION CRITERIA
None	No change.
Negligible	Little perceptible change.
Low	Minor change, affecting some characteristics and the experience of the landscape to an extent; and Introduction of elements that is not uncharacteristic.
Medium	Noticeable change, affecting some key characteristics and the experience of the landscape; and Introduction of some uncharacteristic elements.
High	Noticeable change, affecting many key characteristics and the experience of the landscape; and Introduction of many incongruous developments.
Very High	Highly noticeable change, affecting most key characteristics and dominating the experience of the landscape; and Introduction of highly incongruous development.

Visual Effects

10.2.24 Visual effects are determined by the extent of visibility and the nature of the visibility (i.e., how a development is seen within the landscape); for example, whether it appears integrated and balanced within the visual composition of a view or whether it creates a focal point.

10.2.25 Adverse visual effects may occur through the intrusion of new elements into established views, which are out of keeping with the existing structure, scale, and composition of the view. Visual effects may also be beneficial, where an attractive focus is created in a previously unremarkable view or the influence of previously detracting features is reduced. The significance of effects will vary, depending on the nature and degree of change experienced and the perceived value and composition of the existing view.

Receptors

10.2.26 For there to be a visual impact, there is the need for a viewer. Views experienced from locations such as settlements, recognised routes and popular vantage points used by the public have been included in the assessment. Receptors are the viewers at these locations. The degree to which receptors, i.e., people, will be affected by changes as a result of the proposed development depends on a number of factors, including:

- Receptor activities, such as taking part in leisure, recreational and sporting activities, travelling or working;
- Whether receptors are likely to be stationary or moving and how long they will be exposed to the change at any one time;
- The importance of the location, as reflected by designations, inclusion in guidebooks or other travel literature, or the facilities provided for visitors;
- The extent of the route or area over which the changes will be visible;
- Whether receptors will be exposed to the change daily, frequently, occasionally or rarely;
- The orientation of receptors in relation to the site and whether views are open or intermittent;
- Proportion of the developments that will be visible (full, sections or none);
- Viewing direction, distance (i.e., short-, medium- and long-distance views) and elevation;
- Nature of the viewing experience (for example, static views, views from settlements and views from sequential points along routes);
- Accessibility of viewpoint (public or private, ease of access);
- Nature of changes (for example, changes in the existing skyline profile, creation of a new visual focus in the view, introduction of new man-made objects, changes in visual simplicity or complexity, alteration of visual scale, landform and change to the degree of visual enclosure); and
- Nature of visual receptors (type, potential number and sensitivity of viewers who may be affected).

Value of the View

10.2.27 Value of the view is an appraisal of the value attached to views and is often informed by the appearance on Ordnance Survey Ireland (OSi) tourist maps and in guidebooks, literature or art. Value can also be indicated by the provision of parking or services and signage and interpretation. The nature and composition of the view is also an indicator. The value of the view is determined with reference to the definitions outlined in Table 10.5.

Table 10.5: Value of the View

VALUE	CLASSIFICATION CRITERIA
High	Nationally recognised view of the landscape, with no detracting elements.
Medium	Regionally or locally recognised view, or unrecognised but pleasing and well composed view, with few detracting elements.
Low	Typical or poorly composed view often with numerous detracting elements.

Visual Susceptibility

10.2.28 GLVIA3 identify that the susceptibility of visual receptors to changes in views and visual amenity is a function of:

- The occupation or activity of people experiencing the view at a particular location; and
- The extent to which their attention or interest may therefore be focused on the views and visual amenity they experience at particular locations.

10.2.29 For example, residents in their home, walkers whose interest is likely to be focused on the landscape or a particular view, or visitors at an attraction where views are an important part of the experience often indicate a higher level of susceptibility. Whereas receptors occupied in outdoor sport, where views are not important, or at their place of work, are often considered less susceptible to change. Visual susceptibility is determined with reference to the three-point scale and criteria outlined in Table 10.6.

Table 10.6: Visual Susceptibility

SUSCEPTIBILITY	CLASSIFICATION CRITERIA
High	Receptors for which the view is of primary importance and are likely to notice even minor change.
Medium	Receptors for which the view is important but not the primary focus and are tolerant of some change.
Low	Receptors for which the view is incidental or unimportant and are tolerant of a high degree of change.

Visual Sensitivity

10.2.30 Sensitivity to change considers the nature of the receptor; for example, a person occupying a residential dwelling is generally more sensitive to change than someone working in a factory unit. The importance of the view experienced by the receptor also

contributes to an understanding of the susceptibility of the visual receptor to change as well as the value attached to the view.

10.2.31 A judgment is also made on the value attached to the views experienced. This takes account of:

- Recognition of the value attached to particular views, for example in relation to heritage assets, or through planning designations;
- Indicators of the value attached to views by visitors, for example through appearance in guidebooks or on tourist maps, provision of facilities for their enjoyment (sign boards, interpretive material) and references to them in literature or art; and
- Possible local value; it is important to note that the absence of view recognition does not preclude local value, as a view may be important as a resource in the local or immediate environment due to its relative rarity or local importance.

10.2.32 The visual sensitivity to change is based on interpretation of a combination of all or some of the criteria outlined in Table 10.7.

Table 10.7: Sensitivity to Change Criteria

VISUAL SENSITIVITY	CLASSIFICATION CRITERIA
High	• Users of outdoor recreational facilities, on recognised national cycling or walking routes or in nationally designated landscapes. • Residential buildings.
Medium-High	• Users of outdoor recreational facilities, in highly valued landscapes or locally designated. • landscapes or on local recreational routes that are well publicised in guidebooks. • Road and rail users in nationally designated landscapes or on recognised scenic routes, likely to be travelling to enjoy the view.
Medium	• Users of outdoor recreational facilities including public open space in moderately valued landscapes. • Users of primary transport road network, orientated towards the site, likely to be travelling for other purposes than just the view.
Medium-Low	• People engaged in active outdoor sports or recreation and less likely to focus on the view. • Primary transport road network and rail users likely to be travelling to work with oblique views of the proposed development or users of minor road network.
Low	• People engaged in work activities indoors, with limited opportunity for views of the proposed development.

Magnitude of Visual Change

10.2.33 Visual effects are direct effects as the magnitude of change within an existing view will be determined by the extent of visibility of the proposed development. The magnitude

of the visual effect resulting from the development at any particular viewpoint or receptor is based on the size or scale of change in the view, the geographical extent of the area influenced and its duration and reversibility. The variables involved, as per GLVIA3, are described below:

- The scale of the change in the view with respect to the loss or addition of features in the view and changes in its composition, including the proportion of the view occupied by the development;
- The degree of contrast or integration of any new features or changes in the landscape form, scale, mass, line, height, skylining, back-grounding, visual clues, focal points, colour and texture;
- The nature of the view of the proposed development, in relation to the amount of time over which it will be experienced and whether views will be full, partial or glimpses;
- The angle of view in relation to the main activity of the receptor, distance of the viewpoint from the development and the extent of the area over which the changes will be visible; and
- The duration of the effects (short-, medium-, or long-term) and the reversibility of the effect (whether it is permanent, temporary or partially reversible).

10.2.34 The magnitude of visual effect resulting from the development at any particular viewpoint or receptor is based on the interpretation of the above range of factors and is set out in Table 10.8.

Table 10.8: Magnitude of Visual Change Criteria (Visual effects)

MAGNITUDE OF VISUAL CHANGE	CLASSIFICATION CRITERIA
None	No change in the existing view.
Negligible	The proposed development will cause a barely discernible change in the existing view.
Low	The proposed development will cause very minor changes to the view over a wide area or minor changes over a limited area.
Medium	The proposed development will cause modest changes to the existing view over a wide area or noticeable change over a limited area.
High	The proposed development will cause a considerable change in the existing view over a wide area or a significant change over a limited area.
Very High	The proposed development will cause significant changes in the existing view over a wide area or a change which will dominate over a limited area.

Duration and Quality of Effects

10.2.35 Table 10.9 provides the definition of the duration of landscape and visual effects.

Table 10.9: Definition of Duration of Effects

DURATION	DESCRIPTION
Temporary	Effects lasting one year or less.

Short Term	Effects lasting one to seven years.
Medium Term	Effects lasting seven to fifteen years.
Long Term	Effects lasting fifteen to sixty years.
Permanent	Effects lasting over sixty years.

10.2.36 Both landscape and visual effects can be beneficial (positive), adverse (negative), or neutral according to the definitions set out in the Table 10.10.

Table 10.10: Definition of Quality of Effects

QUALITY OF EFFECTS	DESCRIPTION
Neutral	This will neither enhance nor detract from the landscape character or view.
Beneficial (positive)	This will improve or enhance the landscape character or view.
Adverse (negative)	This will reduce the quality of the existing landscape character or view.

Significance Criteria

10.2.37 The objective of the assessment process is to identify and evaluate the potentially significant effects arising from the Proposed Development. The assessment will identify the residual effects likely to arise from the finalised design considering mitigation measures and the change over time.

10.2.38 The significance of effects is assessed by considering the sensitivity of the receptor and the predicted magnitude of effect in relation to the baseline conditions. In order to provide a level of consistency and transparency to the assessment and allow comparisons to be made between the various landscape and visual receptors subject to assessment, the assessment of significance is informed by pre-defined criteria as outlined in Table 10.11. When assessing significance, individual effects may fall across several different categories of significance and professional judgment is therefore used to determine which category of significance best fits the overall effect to a landscape or visual receptor.

Table 10.11: Categories of Significance of Landscape and Visual Effects

SIGNIFICANCE CATEGORY	DESCRIPTION OF EFFECT
Profound	An effect that obliterates sensitive characteristics within the landscape and/ or visual environment.
Very Significant	An effect which, by its character, magnitude, duration, or intensity significantly alters most of a sensitive aspect of the landscape and/ or visual environment.
Significant	An effect which, by its character, magnitude, duration, or intensity alters a sensitive aspect of the landscape and/ or visual environment.
Moderate	An effect that alters the landscape in a manner that is consistent with existing and emerging baseline trends.
Slight	An effect which causes noticeable changes in the landscape and/ or visual environment without affecting its sensitivities.

Not Significant	An effect which causes noticeable changes in the landscape and/ or visual environment but without significant landscape and/ or visual consequences.
Imperceptible	An effect capable of measurement but without significant landscape and/ or visual consequences.

10.2.39 The significance of the effect is determined by considering the magnitude of the effect and the quality of the baseline environment affected by the Proposed Development. The basis for consideration of the significance of effects is included in Plate 10.1.

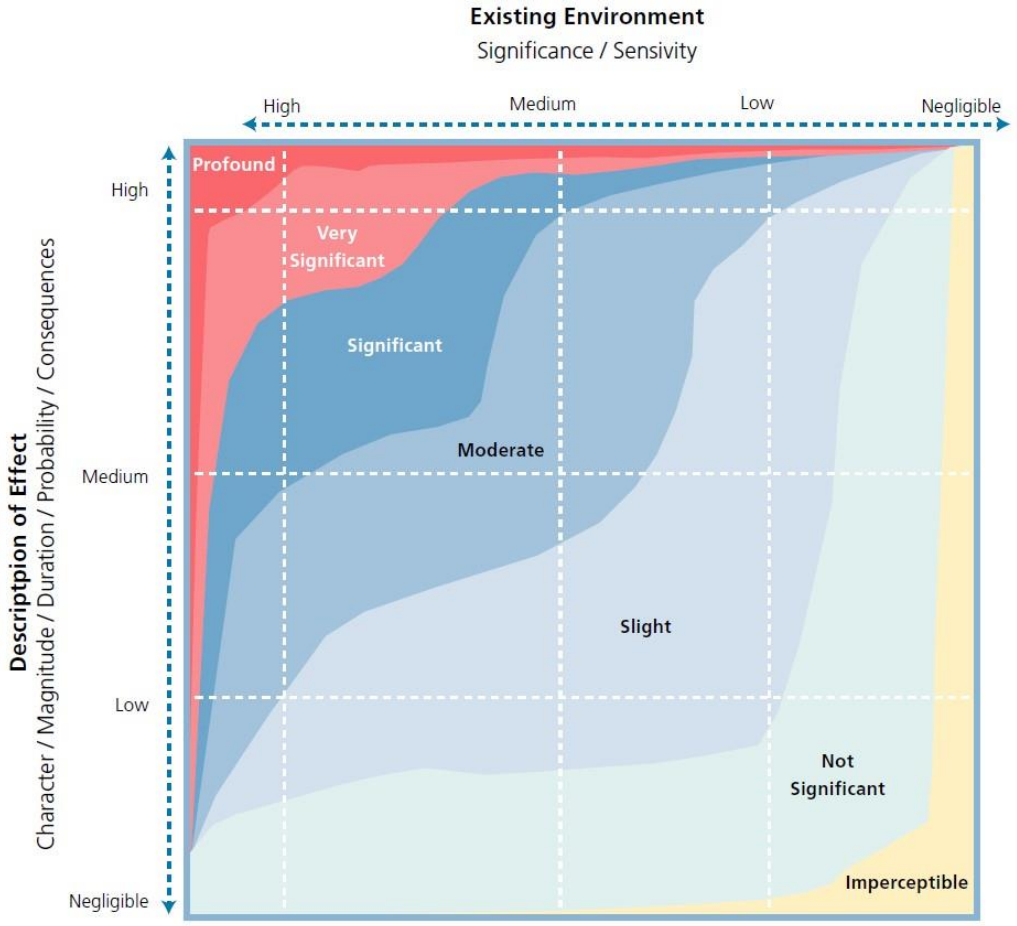

Plate 10.1 Basis for consideration of significance of effects[1]

10.2.40 Effects will be assessed for all phases of the Proposed Development. Construction and decommissioning effects are considered to be temporary, short-term effects which occur during the construction and decommissioning phases only. Operational/ residual effects are those long-term effects, which will occur as a result of the presence or operation of the Proposed Development.

[1] Environmental Protection Agency (EPA) 'Guidelines on the Information to be contained in Environmental Impact Assessment Reports', May 2022. Available online at https://www.epa.ie/publications/monitoring--assessment/assessment/guidelines-on-the-information-to-be-contained-in-environmental-impact-assessment.php

10.2.41 The quality of each effect is based on the ability of the landscape character or visual receptor to accommodate the Proposed Development, and the impact of the development within the receiving context. Once this is done, the quality of the effect is then assessed as being neutral, beneficial, or adverse. A change to the landscape or visual resource is not considered to be adverse simply because it constitutes an alteration to the existing situation.

Cumulative Effects

10.2.42 The approach used to determine cumulative effects has drawn on guidance on cumulative impact assessment published by the GLVIA3. Cumulative landscape and visual effects may result from additional changes to the baseline landscape or views as a result of the Proposed Development in conjunction with other developments of a similar type and scale.

10.2.43 As stated in Chapter 19: Cumulative Effects and Interactions of this EIAR, cumulative effects are those that accrue over time and space from a number of development activities. The impact of the Proposed Development is considered in conjunction with the potential impacts from other projects or activities which are both reasonably foreseeable in terms of delivery (i.e., have planning consent or relevant applications which have been submitted and are in the planning system) and are located within a realistic geographical scope where environmental impacts could act together with the Proposed Development to create a more significant overall effect.

10.2.44 Combined effects are those resulting from a single development (the Proposed Development) on any one receptor that may collectively cause a greater effect.

10.2.45 In November 2021, a planning application and EIAR were submitted to GCC for a separate development project, a 299MW OCGT plant on the western portion of the existing Tynagh Power Station site. Planning approval was obtained for the Approved Development Ref: 21/2192, however the Applicant will be unable to implement it (i.e. will not build/operate the Approved Development Ref: 21/2192') for the foreseeable future due to a range of viability constraints. For robust EIA assessment purposes it is nonetheless assumed that the Approved Development may proceed at some point in the future. As such, to ensure the Approved Development Ref: 21/2192' is adequately considered cumulatively in the EIAR, a 'future baseline' scenario is assessed in the photomontages.

Magnitude of Cumulative Effects

10.2.46 The principle of magnitude of cumulative effects makes it possible for the Proposed Development to have a major impact on a particular receptor, while having only a minor cumulative impact in conjunction with permitted developments of similar scale and nature as the Proposed Development.

10.2.47 The evaluation of the magnitude of cumulative change is based on the criteria outlined in the assessment methodology for landscape and visual effects as stated above as well as on the interpretation of the following parameters:

- The additional extent, direction, and distribution of existing and other developments in conjunction with the Proposed Development;
- The distance between the viewpoint, the Proposed Development and the cumulative developments; and

- The landscape setting, context and degree of visual coalescence of the Proposed Development and cumulative developments.

Significance of Cumulative Effects

10.2.48 As for the assessment of landscape and visual effects, the significance of any cumulative effects follows the same classification as listed in Table 10.11, and will be assessed as Profound, Very Significant, Moderate, Slight, Not Significant, Imperceptible.

10.2.49 The cumulative assessment focuses on potential cumulative effects relating to the main permanent structure of a cumulative development. This is due to the uncertainty of the timing of construction activities for identified developments. As a result, temporary structures and activity relating to construction have not been considered within the cumulative assessment unless otherwise stated.

Fieldwork

10.2.50 Site surveys of the study area were carried out in June and July 2021 identifying the potential visibility of the Proposed Development and key viewpoints within the study area. The extent of the study area has been identified through the production of a ZTV mapping, refer to Figure 10.2, a review of maps and aerial photographs and site survey data. Photomontages showing the existing view and the superimposed development on photomontages have been produced from key representative viewpoints, considering topography, existing buildings, screening vegetation and other localised factors. The photomontages included in Appendix 10A (refer to EIAR Volume II) provides details on viewpoint locations and includes Photomontages 1 – 8.

Interaction of landscape and visual effects with other environmental factors including historic landscapes

10.2.51 The landscape and visual impact assessment focusses on the physical and visual appearance and character of the landscape as it is experienced today.

10.2.52 Landscape is also a consideration under other environmental aspects and assessments, e.g., the natural landscape (biodiversity), the geological landscape (soil and geology), the cultural/ historical landscape (cultural heritage), the human landscape (human health).

10.2.53 While it is evident that an interaction of effects exists between the landscape and visual environment and these other related landscape environments/ environmental factors (not least in in terms of potential for interactions of effects), assessments under these areas are generally addressed separately by other competent specialists in separate chapters of this EIAR. However, the presence/ absence of such indicators can inform judgments on quality and therefore sensitivity.

Selection of Viewpoints

10.2.54 It is not feasible to take photography from every possible viewpoint located in the study area. Photography has been taken from viewpoints, which are representative of the nature of visibility at various distances and in various contexts. Viewpoint photography is used as a tool to come to understand the nature of likely significant effects. The selection process of viewpoint locations is consistent with the following guidance: '*Guidelines for Landscape and Visual Impact Assessment'*, 3rd Edition, 2013, Landscape Institute (UK) & Institute of Environmental Management and Assessment (IEMA), and is as follows:

- The location of viewpoints within the study area is informed by desktop and site surveys;
- Production of a 10km radius ZTV mapping from the centre of the Proposed Development emissions stack at 40m;
- Identification and selection of representative viewpoints showing typical open or intermittent views within a local area, which will be frequently experienced by a range of viewers; and
- Identification and selection of specific viewpoints from key viewpoints in the landscape such as protected focal points and views.

Photomontages

10.2.55 Photomontages are photorealistic visualisations produced using specialist software. They illustrate the likely future appearance of the Proposed Development from a specific viewing point. They are useful tools for examining the impact of the development from a number of critical viewpoint positions along the public road network within the study area.

10.2.56 However, photomontages in themselves can never provide the full picture in terms of potential effects, they can only inform the assessment process by which judgments are made. A visualisation can never show exactly what the Proposed Development will look like in reality due to factors such as; different lighting, weather and seasonal conditions which vary through time and the resolution of the image. As the photomontages are representative of viewing conditions encountered, some of them may show existing buildings or vegetation screening some or all parts of the developments. Such conditions are normal and representative.

10.2.57 The images provided give a reasonable impression of the scale of the development and the distance to the development, but it is recognised and understood within the industry that they can never be 100% accurate. It is recommended that decision-makers and any interested parties or members of the public should ideally visit the viewpoints, where visualisations can be compared to the 'real life' view, and the full impact of the Proposed Development can be understood.

10.2.58 The landscape and visual impact assessment identified a range of viewpoints located within the study area at varying distances from the Site to show the effect of the Proposed Development in key close, middle, and distant views.

10.2.59 'Approved Development Ref: 21/2192' relates to planning application Ref. 21/2192 (submitted as an application to Galway County Council in November 2021, subsequently appealed and approved by ABP under Ref. PL07.313538) - that is a separate 299MW OCGT development and project to that of the Proposed Development which is for a 350MW facility. The Applicant is unable to implement it (i.e. will not build/operate the Approved Development Ref: 21/2192') for the foreseeable future due to a range of viability constraints. For robust EIA assessment purposes it is nonetheless assumed that the Approved Development may proceed at some point in the future. As such, to ensure the Approved Development Ref: 21/2192' is adequately considered cumulatively in the EIAR, a 'future baseline' scenario is assessed in the photomontages.

10.2.60 Viewpoints/ Photomontages 1 - 8 show the Proposed Development including the following information:

- Existing View, showing the baseline image;

- Future Baseline, showing the existing baseline and Approved Development Ref: 21/2192;
- Photomontage, showing proposed Tynagh North development including the Approved Development Ref: 21/2192;
- Wireframe, showing proposed Tynagh North, with indications of visible (red wirelines) and screened (blue wirelines) sections; and
- Wireframe, showing proposed Tynagh North and Approved Development Ref: 21/2192 with indications of visible (red wirelines) and screened (blue wirelines) sections.

10.2.61 Photomontage images have been produced according to the following industry guidelines:

- Guidelines for Landscape and Visual Impact Assessment (GLVIA3), 3rd Edition, Landscape Institute and Institute of Environmental Management and Assessment, IEMA, 2013; and
- 'Visual Representation of Development Proposals', Landscape Institute, Technical Guidance Note 06/19, 17 September 2019.

Zone of Theoretical Visibility

10.2.62 Mapping the extent of the area from which a development is likely to be visible is commonly referred to as a ZTV.

10.2.63 ZTV mapping has been produced for a 10km radius from the centre of the emissions stack centre of the Proposed Development to illustrate the theoretical visual extent of the highest point of the Proposed Development. The ZTV has been assessed based upon an 40m emissions stack height (to allow this height to feed into the design process ahead of completion of air quality stack height determination as per Appendix 7A, EIAR Volume II) above the finished ground floor level. The different height levels have been indicated with different colour bands in the ZTV mapping, which is included in Figure 10.2 (refer to EIAR Volume III).

10.2.64 It should be noted that ZTV mapping does not consider the effects of seasons, lighting, weather conditions or visibility over distance. Moreover, a ZTV does not consider the screening effects of existing vegetation or built structures and indicates therefore a 'worst case scenario'. Therefore, ZTV mappings' principal use was to assist during the desktop viewpoint selection process identifying viewpoints for further analysis on site.

10.3 Regulatory and Policy Framework

European

10.3.1 The European Landscape Convention provides guidelines for managing landscapes/ landscapes. The Convention is not an EU Directive. Countries that sign and ratify the Convention make a commitment to upholding the principles it contains within the context of their own domestic legal and policy frameworks. The convention was ratified by Ireland in March 2002 and came into effects in Ireland in 2004. The European Landscape Convention requires *"landscape to be integrated into regional and town planning policies and in cultural, environmental, agricultural, social and economic*

policies, as well as any other policies with possible direct or indirect impacts on Landscape".

National

10.3.2 The National Landscape Strategy (NLS) for Ireland 2015-2025 was launched in May 2015 and is to be implemented by the Government in the future. The NLS promotes the sustainable protection, management and planning for the landscape/ landscape. The NLS states that the *"National Landscape Strategy will be used to ensure compliance with the European Landscape Convention and to establish* principles *for protecting and enhancing the landscape (landscape) while positively managing its change. It will provide a high-level policy framework to achieve balance between the protection, management and planning of the landscape by way of supporting actions".* It also states that *"The Strategy sets out Ireland's high-level objectives and actions with regard to landscape (landscape). It also positions landscape in the context of existing Irish and European strategies, policies and objectives, and outlines methods of ensuring co-operation at a sectoral and at a European level by the State."*

Regional (County Galway)

Galway County Development Plan 2022 – 2028

10.3.3 The Galway County Council (GCC) Development Plan 2022-2028 is the main strategic and planning policy document guiding the sustainable development of the functional area of GCC. Within Chapter 8: Tourism and Landscape, one strategic aim is relevant to the Proposed Development: "*to protect the landscape categories within the County and avoid negative impacts upon the natural environment.*"

10.3.4 The CDP identifies and describes Landscape Character Areas, as identified in Appendix 4: Landscape Character Assessment. The landscape character assessment aims to "*identify the landscape areas that are used for planning*" to "*…assist establishing policies and objectives for the protection, management and planning of different parts of the landscape*". Based on this assessment, the Planning Authority shall implement the following policy objectives:

- **PO LCM1 - Preservation of Landscape Character**: Preserve and enhance the character of the landscape where, and to the extent that, in the opinion of the Planning Authority, the proper planning and sustainable development of the area requires it, including the preservation and enhancement, where possible of views and prospects and the amenities of places and features of natural beauty or interest.
- **PO LCM2 - Landscape Sensitivity Classification**: The Planning Authority shall have regard to the landscape sensitivity classification of sites in the consideration of any significant development proposals and, where necessary, require a Landscape/Visual Impact Assessment to accompany such proposals. This shall be balanced against the need to develop key strategic infrastructure to meet the strategic aims of the plan.
- **PO LCM3 - Landscape Sensitivity Ratings**: Consideration of landscape sensitivity ratings shall be an important factor in determining development uses in areas of the County. In areas of high landscape sensitivity, the design and the choice of location of proposed development in the landscape will also be critical considerations.
- **PO LCM4 - Open/Unfenced Landscape**: Preserve the status of traditionally open/unfenced landscape. The merits of each case will be considered in light of landscape sensitivity ratings and views of amenity importance.

- **PO LCM5 - Prospecting and Mining:** It is a policy objective of the Planning Authority to give careful consideration in exceptional circumstances for prospecting or mining for gold, silver or base metals in landscapes class 3 or 4.
- **PO PVSR 1 – Protected Views and Scenic Routes**: Preserve the protected views and scenic routes as detailed in Maps 8.3 and 8.4 from development that in the view of the Planning Authority would negatively impact on said protected views and scenic routes. This shall be balanced against the need to develop key infrastructure to meet the strategic aims of the plan

10.3.5 The Landscape Character Assessment defines 4 Landscape Regions which are then subdivided into a total of 10 Landscape Character Types (LCTs). The Proposed Development is located within the Eastern Plains Region, in the LCT classified as the Central Galway Complex Landscape. The latter is defined as "*an extensive plain of grasslands comprising medium-to-large fields with low enclosures and many areas of low stone walls" that "contains the majority of the county's population with associated high levels of rural housing, roads and settlements".* These settlements vary in size from large to small. In regard to this LCT's sensitivity, which is was determined to be low, the assessment states that the "*open countryside offers frequent extensive panoramic views from local high-points".* Additionally, the Proposed Development is located in an area classified as having low landscape sensitivity and is therefore unlikely to be adversely affected by change.

10.4 Baseline Environmental Conditions & Constraints

Outline Methodology

10.4.1 A baseline study has been undertaken through a combination of desk-based research and site appraisal in order to establish the existing conditions of the landscape and visual resources of the study area. Desk based research involved a review of mapping and aerial photography, relevant planning, and policy documents, the relevant Galway County Landscape Character Assessments and other relevant documents and publications. A study area radius of 5km from the Site boundary has been selected to identify potential significant landscape and visual effects (refer to Landscape Designation Figure 10.1, EIAR Volume III). The extent of the study area has been defined via a combination of a desktop survey including a review of maps and aerial photographs of the Site and site survey data.

10.4.2 The study area was defined to an area where landscape and visual effects could potentially be significant rather than defining the extend of the visibility of the proposed development. The extent of the study area has been identified through a review of maps and aerial photographs and site surveys. Given the nature of the Proposed Development works and existing site context, the visual extent in reality is often far less than 5km, and significant effects are mainly confined to immediately adjacent locations.

Landscape Character Assessment

10.4.3 County Galway's CDP contains a Landscape Character Assessment that identifies the landscape character type, landscape unit, and landscape sensitivity rating for the county.

10.4.4 The study area is characterised by presence of rolling hillocks, greenfield areas with some wooded areas in the section south of the existing Tynagh CCGT Power Station Site. The Proposed Development is located to the immediate north of the existing Tynagh Power Station, 1.8km to the north-west of Tynagh, and 11.5km to the east of

Lough Rea. There are a number of residential dwellings and farmsteads along the local road network which surround the Site. The majority of the existing facility is well screened by boundary vegetation and a large mineral spoil heap which sits to the south-western boundary of the Site. The existing Tynagh Power Station CCGT emissions stack (55m) is, however, visible from the surrounding area. Tynagh village is located in the southern side of the study area, which is surrounded by agricultural land and sparse housing.

Land use and Settlement

10.4.5 The Proposed Development will be located within the former Tynagh Mines, to the immediate north of the existing Tynagh Power Station plant. The mines operated from the 1960s to the early 1980s providing an important source of lead and zinc extracted using opencast and underground methods (EIAR Chapter 4: Existing Site and Conditions). The site was partially restored with some rehabilitation undertaken after this.

10.4.6 The immediate land-use which surrounds the site is mainly agricultural lands, primarily used as pastureland for livestock. The field boundaries are comprised of hedgerows with the more traditional stone ditches reinforcing the boundary.

10.4.7 The main settlement in the area is Tynagh Village. Linear residential settlement extends along the LP4310 from the village, directly to the south and west of the Site. Forestry plantation to the south and east of the study area create a more enclosed landscape character but are outside the extents of likely significant effects arising from the Proposed Development.

Future Baseline

10.4.8 In landscape terms, if the works did not go ahead, the site and industrial character will remain unchanged.

10.4.9 'Approved Development Ref: 21/2192' - relates to planning application Ref. 21/2192 (submitted as an application to Galway County Council in November 2021, subsequently appealed and approved by ABP under Ref. PL07.313538) - that is a separate 299MW OCGT development and project to that of the Proposed Development which is for a 350MW facility. Planning approval was obtained for the Approved Development Ref: 21/2192 in April 2023, however the Applicant is unable to implement it (i.e. will not build/operate the Approved Development Ref: 21/2192') for the foreseeable future due to a range of viability constraints. For robust EIA assessment purposes it is nonetheless assumed that the Approved Development may proceed at some point in the future, in amended form. As such, to ensure the Approved Development Ref: 21/2192' is adequately considered cumulatively in the EIAR, a 'future baseline' scenario is assessed where appropriate to present worst case scenario rather than an existing baseline scenario.

10.4.10 In visual terms, the content in available views will remain the same, although changes will occur to existing vegetation due to maturing, pruning or natural decay.

10.5 Impact Assessment (Construction and Operational Phases)

Construction Phase

10.5.1 Areas experiencing landscape and visual effects during the construction stage will vary, depending on active construction works. The Site is located immediately to the north of the existing Tynagh Power Station Site. The majority of ground works will be either screened by intervening vegetation and existing building structures or partially visible from residential properties and the local road network located adjacent to the Site boundary to the west, north-west and south. Works including the upper parts of plant and the proposed 40m high emissions stack will be partially visible from nearby dwellings, the local road network (including the local road to the immediate west of the Site), and from parts of Tynagh Village to the south-east within 1.8km radius of the Site.

10.5.2 More distant views at the construction works can be experienced between 1.5km and 3km from the N65 to the north, elevated locations, and locations with open views to the north, south and west.

10.5.3 Long distance views of construction works can be experienced from locations along the N65 to the north as well as from elevated views further north where there is little vegetation to screen available views. Considering the distance of these views, ranging between approximately 3 - 5km and beyond, visibility is considered not significant due to the effects of distance, the scale of the project and a high dependency on clear weather conditions.

10.5.4 Construction phase effects will result in:

- Likely effects to landscape character or visual amenity within the locality or the wider study area as a result of the visibility of construction activities such as, scaffolding, cranes, the movement of construction vehicles along local roads, and other tall equipment such as machinery on site;
- Effects of temporary site infrastructure such as site traffic; and
- Likely physical effects arising from construction of the development will be confined to the Site and the area of the temporary construction compound.

10.5.5 The highest landscape and visual effects during the construction stage will be experienced in the vicinity of the Site, from locations with open or partial views of the Site. Principal views of construction works will likely be experienced within a radius of up to approximately 500m from the boundary of the Site from the west, north and south due to the nature and scale of the Proposed Development located in close proximity to an adjoining separate industrial site within the area.

10.5.6 Construction works will also be visible beyond 500m, within the 5km study area in views particularly to the north where there are available elevated views of the Site. While discernible, the construction effects in long distance views are not considered significant as they form part of a wide panoramic view in which they form one visible component of many.

10.5.7 The landscape and visual effects and their significance at construction stage will be temporary, adverse and range from Not Significant to Slight Adverse in the wider study area and from Moderate to Significant Adverse for areas in close proximity, up to approximately 500m radius from the boundary of the Site, where intervening existing vegetation and built structures do not screen views of the Proposed Development.

Operational Phase

10.5.8 Appendix 10A (refer to EIAR Volume II) as well as Figure 10.3 (refer to EIAR Volume III) illustrate viewpoints from locations selected as 'Representative Viewpoints' for the assessment of landscape and visual effects of the Proposed Development.

10.5.9 Operational effects will result in:

- Likely effects of the development on views and visual amenity such as the potential for the development to alter (beneficial or adverse) the composition of the view from a viewpoint; and
- Likely cumulative effects of the development in conjunction with other committed developments of similar type and scale upon the landscape and visual resource of the study area.

Landscape Effects

10.5.10 The following likely direct and indirect landscape effects have been identified (along with their duration and nature) arising from the Proposed Development. Direct or indirect landscape effects on the fabric of the landscape and its receptors are closely related to the nature and extent of visibility.

10.5.11 The Site is located in LCT Central Galway Complex. This LCT has been indicated in Figure 10.1 – Landscape Designations.

10.5.12 The main landscape effects of the Proposed Development will be associated with the introduction of additional industrial buildings and emissions stack associated with the Proposed Development plant, leading to an intensification of the established industrial character of the Site and its surroundings. It is considered that the development will not alter the prevailing landscape character within the study area, however the industrial character will intensify further with the introduction of the Proposed Development.

10.5.13 Direct and long-term change or modification will occur locally where the Proposed Development will be physically located, in particular the introduction of additional building infrastructure on an area of land adjacent to the existing Tynagh Power Station Site. The magnitude of landscape change is considered High and the resulting significance Slight Neutral as the site is already industrial in character.

10.5.14 Indirect change will occur outside of the Site boundary, where the visibility of the Proposed Development has an influence on the perception of the character of the landscape. The indirect change in landscape character is greatest in its immediate and close surroundings where open and partial views are possible within approximately 500m radius from the Site boundary in views from the north, south and west. Views from the south-west and east are largely screened by vegetation and landform. A significant bund associated with the former mine screens views from the south-western section of the study area. The magnitude of change in these areas is considered Medium. The significance of landscape effects on the landscape character is therefore considered to be Moderate Adverse.

10.5.15 Indirect change and the significance of landscape effects will reduce with increasing distance from the Site in the remaining study area (between approximately 3km and 5km from the Site boundary) to Moderate and Slight Adverse. Given the prominence of the existing 55m emissions stack associated with the existing Tynagh Power Station, the intensification of the industrial character can be recognised over long distances throughout the wider study area in available views.

10.5.16 A summary of landscape effects on receptors located within the study area is provided in Table 10.14.

Table 10.12: Summary of Landscape Effects

RECEPTOR	SUSCEPTIBILITY	SENSITIVITY	MAGNITUDE OF LANDSCAPE EFFECTS	SIGNIFICANCE / QUALITY OF LANDSCAPE FFECTS
Landscape Character Type - 'Central Galway Complex' within the Site.	Low	Low	Low	Slight / Neutral.
Landscape Character Type - 'Central Galway Complex' outside the Site within approximately 500m of the Site boundary.	Low	Low	Medium	Moderate / Adverse
Landscape Character Type - 'Central Galway Complex' outside the Site within approximately 3km of the Site boundary.	Low	Low	Low - Medium	Slight – Moderate / Adverse
Landscape Character Type - 'Central Galway Complex' outside the Site within approximately 5km of the Site boundary.	Low	Low	Low	Slight / Adverse

Visual Effects

10.5.17 The Proposed Development is located approximately 1.8km to the north-west of Tynagh village and 12.5km to the east of Loughrea. There are a number of residential dwellings and farmsteads along the local road network which surround the site. The existing facility is well-screened by boundary vegetation and a large mineral spoil heap which sits to the south-western boundary of the Proposed Developments boundary. Tynagh village is located in the southern side of the study area, which is surrounded by agricultural land and sparse housing.

10.5.18 Visual effects will mainly relate to the introduction of industrial buildings/ plant and an emissions stack which will intensify the industrial nature of the site and immediate surrounds.

10.5.19 The main visual receptor groups are local residents, vehicle travellers, and pedestrians. Residents and pedestrians will have a higher sensitivity to change than the road users. Vehicle travellers will focus on traffic and not primarily on available views and will see the Proposed Development in conjunction with the prominent existing Tynagh CCGT Power Station structures.

10.5.20 The majority of residential dwellings in the immediate environment of the Proposed Development are located mainly to the west in the form of one-off houses.

10.5.21 The Proposed Development will add to the existing industrial building complex within the Site. Depending on weather conditions, the proposed 40m emissions stack will be visible

from elevated locations to the north, beyond 3km. It will introduce another industrial feature, with additional buildings, such as the air intake building becoming more prominent within available views. However, the existing Tynagh CCGT Power Station with its 55m high emissions stack will remain the most prominent industrial feature particularly in views immediately west and southwest of the Site boundary (refer to Photomontage 01 – 03, Appendix 10A, EIAR Volume II) as well as in elevated views north and north-east within an area of approximately 3km radius from the Site (refer to Photomontage 05). Long distance (up to approximately 5km) views from elevated areas further north will be possible where elevated and open views of the Proposed Development become available.

10.5.22 The magnitude of visual effects on local residents and residential areas with views of the Proposed Development within approximately 500m are considered to range from Low to High and with effects ranging between Slight Neutral –Moderate Adverse depending on the openness of views and intervening screening by vegetation, topography or built structures. The highest visual effects will be experienced within approximately 500m radius from locations with open or partial views of the proposed emissions stack and sections of the building.

10.5.23 Views beyond approximately 500m will comprise mainly the upper sections of the emission stack and buildings, which will be recognisable but, as for the entire Proposed Development, it will be seen in conjunction with the existing already prominent Tynagh CCGT Power Station structures including the existing 55m tall emissions stack, as seen in Viewpoint/ Photomontage 03. The magnitude of visual change is considered Low - Medium and the significance Slight Neutral - Moderate Adverse.

10.5.24 In long distance views ranging between approximately 1km – 3km, particularly from the N65 to the north and Tynagh Village to the south, effects will vary from Low to Medium and their significance from Moderate Adverse to Slight Neutral. While the Proposed Development will intensify and extend the perceived industrial character within the receiving landscape and become a new feature within the existing view, the change will be additional elements seen in conjunction with the existing prominent elements and will likely be perceived as one development, this can be seen in Viewpoint/ Photomontage 05. The proposed architectural mitigation measures in terms of façade design and colour (as described in Section 10.6) will help integrate the Proposed Development into its setting. The magnitude of visual effects is considered Medium and its significance Moderate Adverse.

10.5.25 Viewpoint/ Photomontages 01 - 08 (refer to Appendix 10A, EIAR Volume II) illustrate views from representative viewpoints within both, the study area and the wider study area.

Viewpoint 1 - View south-east from LP4310 road west of the Proposed Development western boundary

10.5.26 Viewpoint 1 is representative of views south-east from along the local road west of the Site's western boundary. The distance to the nearest section of the main development area from this viewpoint is approximately 656m. A residential property can be seen to the centre left of view with two other dwellings located nearby, just out of shot. The existing Tynagh CCGT Power Station structures are visible above the outhouse roof tops. The most prominent existing visible structure, located within the existing Tynagh CCGT power station site, is the main emissions stack measuring 55m in height, which extends vertically above the outhouses seen in the middle distance.

10.5.27 The value of this view is considered to be medium. The visual receptors are local residents, visitors and road users travelling south. The sensitivity and susceptibility to change is considered high as the main receptor groups will be residents who experience this or similar views on a daily basis.

10.5.28 The Proposed Development will be fully screened by the residence in the foreground and will result in no visual change and no significant visual effects. It is a 'no change' scenario.

Viewpoint 2 – View east from LP4310 road west of the Proposed Development western boundary

10.5.29 Viewpoint 2 is representative of views east from along the LP4310 road adjacent to the Site at the existing Tynagh CCGT Power Station westerly entrance. The distance to the nearest section of the main development area from this viewpoint is approximately 369m. The immediate context is rural in character, with hedgerows and overhead cable lines defining the road boundary. From this vantage point, the existing CCGT power plant structures are partially visible in the distance with the most prominent structure being the main emissions stack measuring 55m in height as well as a partial top corner of an existing building within the site.

10.5.30 The value of this view is considered to be medium. The visual receptors are mainly road users looking south as well as one residential property which sits directly behind the viewpoint. The sensitivity and susceptibility to change is considered low as the main receptor groups will be road users who experience this or similar views on a daily basis.

10.5.31 Upper sections of the Proposed Development including the stack will become visible in the middle distance above existing intervening built structures. It will be seen in conjunction with the existing power station and the Approved Development Ref:21/2192. The visibility of the proposed structures intensifies the industrial character of this view. The magnitude of change is considered Low and resulting significance / quality of visual effects is considered to be Minor / Adverse. Considering the hedgerow growth during the summer, visibility of the plant will reduce depending on the height of the intervening hedgerow. The magnitude of visual effects during the summer months is considered to reduce and the resulting significance / quality of effects is Slight / Neutral.

Viewpoint 3 - View north-east from the Tynagh/ Loughrea road south of the Site

10.5.32 Viewpoint 3 is representative of views north-east from along the LP4310 Tynagh to Loughrea road. The distance to the nearest section of the main development area from this viewpoint is approximately 1,470m. The immediate context is rural and agricultural in character which is largely defined in this view by open, undulating grassland, mature trees, and hedgerow vegetation. The foreground of the view comprises of said hedgerows with prominent clusters of vegetation within the fields and less prominent overhead cable lines. In the distance behind a large former mine bund is the existing Tynagh CCGT Power Station emissions stack measuring 55m in height which is partially visible to the left of centre in this view, with subtle contrast against the surrounding agricultural scale. To the right of this stack is a telecommunication mast which sits atop the elevated bund topography and is somewhat noticeable as a thin vertical element extending above the surrounding context.

10.5.33 The value of this view is considered to be low. The visual receptors are mainly road users looking north-east, farmers accessing the lands and walkers. The sensitivity and susceptibility to change is considered low as the main receptor groups will be road users and landowners/ farmers who experience this or similar views on a daily basis.

10.5.34 The upper most section of the proposed stack will become visible adjacent to the Approved Development Ref: 21/2192 emissions stack in the distance against a backdrop of sky sitting vertically above the undulating field. The Proposed Development will barely be perceptible and does not further intensify the industrial character within this view, the overall character remains unchanged and the existing emissions stack as well as the one from the Approved Development Ref: 21/2192 remains the dominant feature within this view. The magnitude of change is considered Negligible and resulting significance / quality of visual effects is considered to be Imperceptible / Neutral.

Viewpoint 4 - View north-west from Tynagh/ Kilimor Road south of the Site

10.5.35 Viewpoint 4 is representative of views north-west from along the Tynagh to Kilimor road. The distance to the nearest section of the main development area from this viewpoint is approximately 2,190m. The immediate context is rural and agricultural in character with open grassland, mature trees, and hedgerow vegetation defining the view. The foreground of the view comprises a vast expanse of field with very subtle overhead cable lines which run parallel along the horizon line to the hedgerow vegetation in the distance. Along this horizon line is the existing Tynagh CCGT Power Station emissions stack as a thin vertical element which blends in with the vertical alignment of the trees.

10.5.36 The value of this view is considered to be low. The visual receptors are mainly road users looking north-west, farmers accessing the fields and walkers. The sensitivity and susceptibility to change is considered low as the main receptor groups will be road users who experience this or similar views on a daily basis.

10.5.37 The upper section of the Proposed Development will be seen in the distance in conjunction with the existing Tynagh CCGT Power Station and the Approved Development Ref: 21/2192 and against a backdrop of sky. The primary visibility of the development will relate to the emissions stack that will appear smaller in scale and mass to the existing power plant stack to the left. The additional elements within this view will be barely discernible given the distance and nature of the Proposed Development. The magnitude of change is considered Low and resulting significance / quality of visual effects is considered to be Slight / Adverse.

Viewpoint 5 - View south-west from the N65

10.5.38 Viewpoint 5 is representative of views south-west from along the N65 road to the north of the Site. The distance to the nearest section of the main development area from this viewpoint is approximately 2,790m. Beyond the road carriageway and associated boundary fencing, the views are far in distance and provide panoramic views over the undulating hinterland. The existing feature of the Tynagh CCGT Power Station emissions stack can be seen centre of the view behind vegetation, in the far distance. A network of electricity pylons/ towers can be seen across this view. The field boundaries are made up of a network of mature vegetation, infrastructure such as road lighting columns and overhead power lines and wires.

10.5.39 The value of this view is considered to be medium-low. The visual receptors are mainly road users and residents. The sensitivity and susceptibility to change is considered low.

10.5.40 Visibility of the Proposed Development will be limited to the proposed emissions stack and upper sections of the air intake plant which will be seen to the right of the existing emissions stack and the Proposed Development Ref: 21/2192 in this view. The scale of the proposed development from this distance and elevation, will be discernible within this

view. The magnitude of change is considered Medium-Low and the resulting significance / quality of visual effects is considered to be Moderate-Slight and Adverse.

Viewpoint 6 - View south-west from the L8770 local road north of the Site

10.5.41 Viewpoint 6 is representative of views south-west from the L8770 local road north of the Site. The distance to the nearest section of the main development area from this viewpoint is approximately 1,530m. The immediate context is rural and agricultural in character which is largely defined in this view by open, undulating grassland, mature trees, and hedgerow vegetation. The foreground of the view comprises of a large green field, enclosed by a mature hedgerow with prominent clusters of vegetation within the fields and less prominent overhead cable lines. In the distance behind a band of trees, the Tynagh CCGT Power Station can be seen with the existing emissions stack prominently standing to the left of the view.

10.5.42 The value of this view is considered to be low. The visual receptors are mainly road users looking south-west, farmers accessing the lands and walkers. The sensitivity and susceptibility to change is considered low as the main receptor groups will be road users and farmers accessing the land who experience this or similar views on a daily basis.

10.5.43 The Proposed Development will be visible in the distance against a backdrop of sky, sitting vertically above the undulating field. It will be seen in conjunction with the existing CCGT Power Station and the Approved Development Ref:21/2192. The primary visibility of the Proposed Development will relate to the proposed 40m emissions stack that will appear similar in scale and mass to the existing power plant 55m high emissions stack. The proposed air intake building will also form a recognisable new element and intensify the industrial character in this view. However, the overall character remains similar considering the existing industrial features in this view. Therefore, the magnitude of change is considered Low and resulting significance / quality of visual effects is considered to be Slight / Adverse.

Viewpoint 7 - View north-west from Cre na Cille housing development south of Tynagh Village

10.5.44 Viewpoint 7 is representative of views north-west from the Cre na Cille residential development in Tynagh village. The distance to the nearest site boundary of the main development area from this viewpoint is approximately 1,660m. This road is used by local residents. The view is short in distance as the dwellings screen the majority of views into the distance. The upper parts of the existing Tynagh CCGT Power Station emissions stack can be seen above the dwellings in the distance.

10.5.45 This view has been assessed at community level, as it is a shared among residents of the area, the value of this view is considered to be low. The visual receptors are local residents looking north-west towards the Proposed Development. The sensitivity and susceptibility to change is considered high as the receptor will experience this view on a daily basis.

10.5.46 The Proposed Development will be screened in its entirety by intervening landform and buildings and therefore will not alter this view. The Proposed Development will result in no visual change and no significant visual effects. It is a 'no change' scenario.

Viewpoint 8 - View north-west from a cul-de-sac south of Tynagh Village

10.5.47 Viewpoint 8 is representative of views north-west from along the Tynagh to Kilimor Road. The distance to the nearest section of the main development area from this viewpoint is approximately 1,440m. The immediate context is rural and agricultural in character with

open grassland, mature trees and hedgerow vegetation defining the view. The existing Tynagh CCGT Power Station emissions stack is visible along the horizon line and blends in with the vertical alignment of the trees.

10.5.48 This view has been assessed at community level, as it is a shared among residents in the area, the value of this view is considered to be medium. The visual receptors are local residents looking north-west towards the Proposed Development. The sensitivity and susceptibility to change is considered high as the receptor will experience this view on a daily basis.

10.5.49 The Proposed Development will be screened in its entirety by intervening landform and therefore will not alter this view. The Proposed Development will result in no visual change and no significant visual effects. It is a 'no change' scenario.

Table 10.13: Summary of Visual Effects from representative viewpoint locations

RECEPTOR	SUSCEPTIBILITY	SENSITIVITY	MAGNITUDE OF VISUAL EFFECTS	SIGNIFICANCE/ QUALITY OF VISUAL EFFECTS
Viewpoint 1	High	High	No Change	No Change
Viewpoint 2	Medium	Medium	Medium	Moderate / Adverse
Viewpoint 3	Medium	Medium	Negligible	Imperceptible / Neutral
Viewpoint 4	Low	Low	Low	Slight / Adverse
Viewpoint 5	Low	Low	Medium-Low	Moderate-Slight / Adverse
Viewpoint 6	Medium	Medium	Low	Slight / Adverse
Viewpoint 7	High	High	No Change	No Change
Viewpoint 8	High	High	No Change	No Change

10.6 Mitigation and Enhancement Measures

10.6.1 Mitigation is a term used to describe the measures or actions that may be taken to minimise environmental effects. The purpose of mitigation is to avoid, reduce and where possible remedy or offset, any significant adverse direct and indirect effects on the environment arising from the Proposed Development. The following main landscape and visual mitigation categories have been defined and are itemised below:

1. Architectural Design – Colour Scheme

The principal landscape and visual mitigation measures for the Proposed Development are inherent in the design of its architecture, with the primary objective to minimise the visual impact of the buildings and structures and allow the building to be unobtrusive against its backdrop, the colours, forms, and textures are also mindful of the surrounding landscape.

2. Construction Phase

Visual mitigation measures at construction include the following:

- Minimise external lighting related to construction works; and
- Regular cleaning or public roads to remove any track out and to reduce temporary effects on visual amenity.

3. Lighting

Mitigation measures to reduce visual effects in relation to additional lighting include the following:

- Lighting will be minimal and low level and kept to essential locations only, with the position and direction of lighting being designed to minimise intrusion and disturbance to adjacent areas;
- Use of full cut-off lanterns are proposed to minimise light spillage and upward escape of light onto adjacent areas; and
- Lighting (including on stacks and Continuous Emissions Monitoring System (CEMS) platform) monitoring will be turned off where possible when not in use except to meet the minimum requirements for Health and Safety.

10.7 Residual Effects

10.7.1 Given the scale and location of the Proposed Development, the main landscape and visual mitigation measures focus on architectural mitigation and minimising lighting during night-time. Hence, measures will be implemented immediately and come into effect following the completion of construction works. The vegetation which currently provides screening to the existing power station and seen within the photomontages will not change from the baseline conditions through the introduction of the Proposed Development. The existing vegetation, while retained (i.e. it is off site and outside the control of the applicant), will screen the lower parts of the existing and Proposed Development.

10.7.2 The majority of visible built structures in available views will remain as at the time of the completion of construction works (façade design and colour scheme, lighting design). Considering the often-long distance nature of available views, landscape mitigation will not be able to further reduce landscape and visual effects, as identified in Section 10.6. There will be a slight increase in visual effects during the winter season due to the absence of foliage (note montages assess winter views for worst case). The majority of differences in visibility will be experienced locally within approximately 500m radius depending on the pruning status of intervening hedgerows (refer to Photomontages 02 for example) as well as the amount of other intervening vegetation. The magnitude and significance of landscape and visual effects will therefore remain the same as described in Section 10.5 and summarised in Tables 10.12 and 10.13.

10.8 Cumulative effects

10.8.1 Cumulative landscape and visual effects may result from additional changes to the baseline landscape or views as a result of the Proposed Development in conjunction with other developments of a similar type and scale.

10.8.2 A review of planning applications within 1km of the Site was completed (refer to EIAR Chapter 4: Existing Site and Conditions). No applications were identified as having potential to act cumulatively with the Proposed Development as they are all small-scale developments, except for the Approved Development Ref 21/2192 and the existing Tynagh CCGT Power Station to the south of the boundary. However, these developments are already located in an area of industrial character; the site of Approved Development Ref 21/2192 is located on a brownfield site of existing hardstanding currently utilised as a car park, warehouse and administrative building. Therefore, given the size, scale, and nature of other planning applications and the existing Tynagh CCGT Power Station, none will interact with the Proposed Development to cause significant cumulative impacts.

10.9 References

Landscape Institute and IEMA (2013) 'Guidelines for Landscape and Visual Impact Assessment' (GLVIA3), 3rd Edition, 2013;

Landscape Institute (2013) 'Visual Representation of Development Proposals', Technical Guidance Note 06/19, 17th September 2019;

EPA (2022): 'Guidelines on the information to be contained in Environmental Impact Assessment Reports';

Galway County Council (2022), Galway County Development Plan 2022-2028;

National Parks and Wildlife Service (NPWS), http://www.npws.ie/;

Irishtrails, https://www.sportireland.ie/outdoors/find-your-trails; and

Descriptions and drawings of the proposed scheme.