4 LANDSCAPE AND VISUAL IMPACT

4.1 INTRODUCTION

This section analyses the existing landscape character and significance along the route corridor of the proposed 110kV electricity transmission line as well the associated substations and upgrading of existing lines. It also provides an evaluation of the potential for landscape and visual impacts associated with the proposed development.

The assessment is made having regard to the vulnerability of the landscape to change and to the location of the visual receptors relative to the proposed development.

The purpose of this report is to facilitate decision-making during the development control process through the identification and description of the significance of the project's effects on the landscape.

The report was prepared by D. C. Skehan, MILI, MRIAI, MIPI, MIAIA, MIEAM, MLA. B.ArchSc, Dipl Arch. He is a Chartered Landscape Architect, Planner, Architect and Impact Assessor. He is one of the coauthors of both editions of the standard work on this topic; *Guidelines on Landscape and Visual Impact Assessment*⁹ as well as author of the EPA's *Guidelines on Information to be Contained in EISs* and *Practical Advice notes on Current Practice in the Preparation of EISs*¹⁰. As founder and managing director of a number of environmental and planning consultancy firms he has extensive Irish and international experience of the preparation and assessment of large scale infrastructural projects in rural areas.

4.2 METHODOLOGY

The main landscape features and landscape character areas were identified through a combination of site visits and documentation surveys.

Landscape impacts were analysed on the basis of:

- The capacity of the existing landscape to absorb the proposed development;
- Proximity of sensitive viewpoints (e.g. scenic routes) and visual receptors;
- The location and height of the proposed electrical structures.

Visual impacts are evaluated taking account of:

- The potential level of visual intrusion;
- The potential for visual impact dependant on the proximity and elevation of structures to a sensitive viewpoint/visual receptor.

The evaluation of landscape and visual effects was assessed in two stages. At the first stage, a broad study area was examined to provide a comparative evaluation of the likely effects of a number of potential route corridors. Likely landscape effects were examined in conjunction with those arising from other factors, such as ecology and cultural heritage, in order to identify an "emerging preferred route corridor". This route corridor was then subject to detailed examination, assessment and refinement to define the final route and its effects.

This and previous reports have been prepared having regard to relevant guidelines - Landscape and Visual Impact Assessments, Guidelines on Information to be contained in EISs and Practical Advice notes on Current Practice in the preparation of EISs, as well as current County Council Development Plans.

⁹ Spons, London, 2002

¹⁰ Environmental Protection Agency, Ireland, 2002.

The project includes a number of components which are broken down into units for ease of description (Units 1 - 8). A description of each unit is presented in Section 2 of this Report.

4.3 RECEIVING ENVIRONMENT

4.3.1 LANDSCAPE CONTEXT

The area under analysis is the transition between the Central Plain and the outliers of the Castlecomer Plateau. The core of the area contains complex small-scale landscapes formed by the incisions of the River Nore and its tributaries. It is a relatively lightly populated area with relatively few features of regional or county landscape significance – though the town of Abbeyleix to the west is an important local amenity and the N77, which parallels much of the southern part of the routes, is a well trafficked inter-county road. The general landscape types – which consist of agricultural lowlands and transitional/upland landscapes are of a type that is regional and nationally abundant.

4.3.2 LANDSCAPE CHARACTER

The study zone contains four principle types of landscapes;

4.3.2.1 Central Plain Lowlands

These are an abundant type of landscape through the centre of Ireland that comprises fairly level ground – usually used for pasture and tillage on lighter soils – interspersed with areas of bog and occasional wetland. These landscapes generally have lower visual absorption capacity in areas with higher agricultural capability where fields are larger and hedges are lower. In areas of impeded drainage or poor soils less intensive land management can lead to areas with a medium to high capacity to absorb visual effects – though areas of open water, wetlands and bogs are very visually vulnerable. Such landscape west of Ballyragget and Abbeyleix are of the more open type.

4.3.2.2 River Valleys

These are common, but very localised landscapes – rarely extending for more than 0.5km on either side of the river. They are visually complex – often having very high degrees of visual robustness on account of topography and dense vegetation – though open views along the length of the River can be expansive and proportionately vulnerable and sensitive. The Nore is a river landscape that is noted as a visual and amenity resource.

4.3.2.3 Transitional Areas

The zone where lowlands blend into uplands are usually characterised by smaller fields, less fertile soil, less intensive land management with associated complex patterns of vegetation,— all of which combine with varying topography and scattered settlement to produce a localized landscape with a relatively high capacity to absorb visual effects. Areas to the east of Ballinakill exhibit many of these features.

4.3.2.4 Uplands

Elevation, topographic exposure, little or no tall vegetation and few other man-made structures mean that upland areas are usually characterised as being more visually vulnerable than other landscape – even when used for agriculture. The final route does not pass through or immediately adjacent to any upland areas

4.3.3 LANDSCAPE SIGNIFICANCE

4.3.3.1 County Kilkenny

The southern part of the study area traverses the Landscape Character Area Castlecomer Plateau as identified in the Kilkenny Landscape Character Assessment. It is adjacent to the Castlecomer transition area B2.

The Castlecomer Transition (B2) is illustrated in Figure 4.1. The western area is a long linear strip of land, running in a north-south direction, which is parallel to the River Nore Valley and close to the Dinin River. The area encompasses the environs of Ballyragget and Castlemarket areas. The Assessment notes that 'These transitional areas are not perceived as having special landscape or scenic amenity values and are considered suitable for development'.

The Kilkenny County Development Plan at Figure 8.1 also recognizes 'Areas of High Amenity' and 'Scenic Views' which includes Area of High Amenity 2 and Scenic Views V19¹¹ and V12¹² – which are shown in the extract from the County Development Plan on Figure 4.2.

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 $^{^{11}}$ V 19 View west towards the Slieve Bloom Mountains on road no's. 96 and 110 at the junctions with road nos. LS5839 and LS5846 (Ballymartin Cross Roads).

¹² V12 Views overlooking Castlecomer and Ballyragget on the Castlecomer / Ballyragget Road R694 between its junctions with road nos. 1227 and 250m south east of road no. 1063.

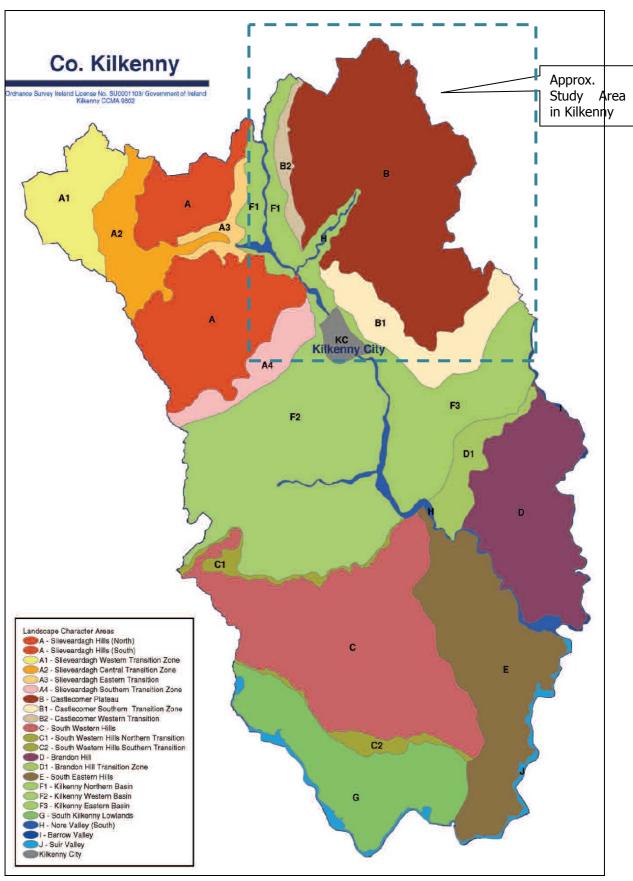


Figure 4.1 Map 1 Landscape Character Area Castlecomer Plateau [Showing study area used for route selection]

Source: Kilkenny Landscape Character Assessment

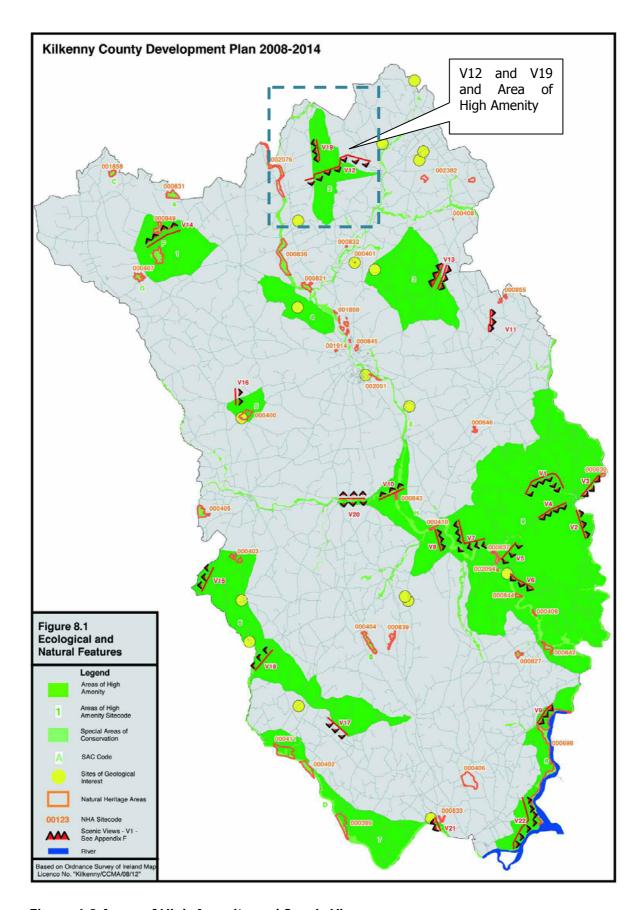


Figure 4.2 Areas of High Amenity and Scenic Views [Source: Kilkenny County Development Plan]

4.3.3.2 County Laois Legend: = Mountain Areas = Hills and Upland areas Portarlingtor = Rolling Hills = Lowland Agricultural Areas = Peatland Areas Mountmellick = Urban Fringe Areas Ballyfin = River Corridors and Lakes Portlaoise = Motorway Stradbally = National Secondary Roads Mountrath = Strategic Regional Roads = Regional Roads Borristin-Ossory Ballyroan Ballylynar = County Boundary Abbeyleix Clough Ballacolla Rathdowney Significant Tree Groups Significant Views

Figure 4.3 Extract from Landscape Character Assessment [top] Extract from the map of Views and prospects [bottom]

The Laois County Development plan shows the Landscape Character of the area along the route is classified as Hills and Upland Areas. The nearest designated View is shown lying east of Timahoe – about 3 km from the route. A Woodland symbol is shown in the vicinity of the Haywood Demesne east of Ballinakill.

4.3.4 LANDSCAPE UNITS

This section provides an assessment of the visual effects of the proposed route where the new line will be located. For the purpose of evaluation, the route corridor is subdivided into five landscape character units, each of which contains areas of approximately similar character. Figure 4.4 below indicates the location of the Landscape Units used for this assessment, Table 4.1 below details the landscape units for the purposes of this assessment, while Section 4.3.5, following, provides a general description of each Unit. A series of 36 photographs have been used to describe the existing environment in detail. These photographs are also used to assess the effect of the project on the landscape.

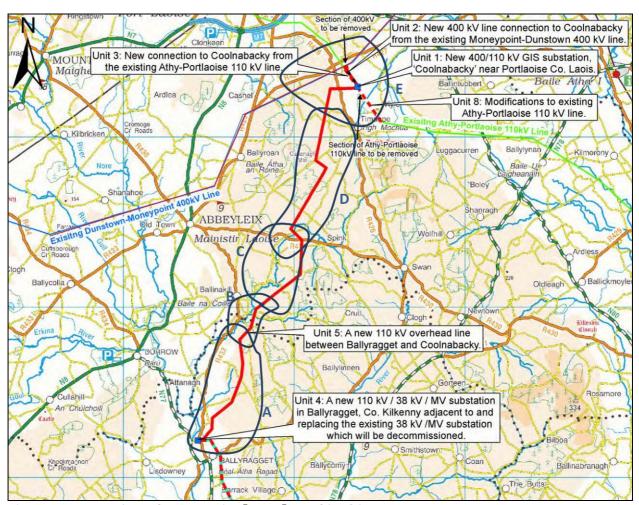


Figure 4.4 Map of Landscape Units [A - E] used in this assessment

Zone	Description	Views
Α	Northern Environs of Ballyragget to South-eastern environs of Ballinakill	Views 2 – 13
В	South-eastern environs of Ballinakill	Views 12 – 17
С	Ballinakill Environs to Boleybeg Cross Roads	Views 17 – 20
D	Boleybeg Cross Roads to eastern environs of Timahoe	Views 20 – 26
E	Eastern environs of Timahoe to Money – Coolnabacky Environs	Views 27 – 36

Table 4.1 Description of the Landscape Units used in this Assessment

Environmental Report for Laois-Kilkenny Reinforcement Project

The resultant differentiation of landscape units are, therefore, based upon more variations in the following factors.

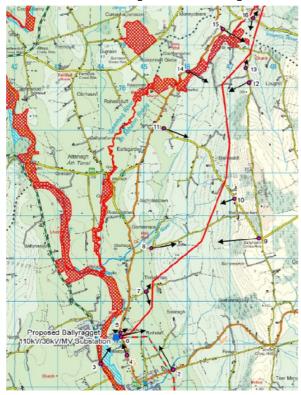
- Proximity to major settlements
- Proximity to the roads with views
- The height, extent of surrounding uplands
- The size of fields and their types of boundaries
- The types and height of vegetation

It follows that the boundaries between zones are relatively imprecise and are intended to be treated as such.

The following section provides descriptions of each unit referring to maps, and a selection of photographs within each unit. Full details of every photograph in every unit are provided in Section 4.4.3 – as well as in Appendix 4.1 where larger scaled images of each photograph are provided.

GENERAL DESCRIPTION OF LANDSCAPE UNITS USED FOR ASSESSMENT¹³ 4.3.5

4.3.5.1 Zone A: Northern Environs of Ballyragget to South-eastern environs of Ballinakill [Views 2 - 13]







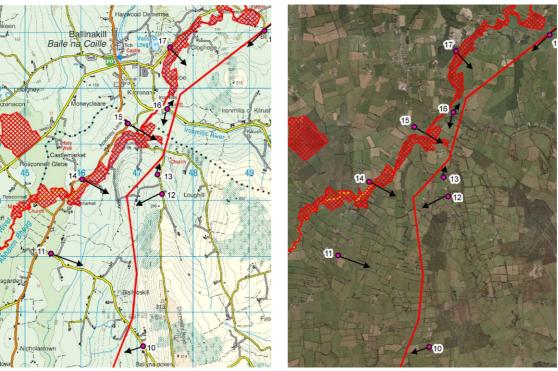
View 5



View 9

 $^{^{13}}$ Note that Views from this area [Ballymartin Cross Roads in View 9] and the area below are designated in the Kilkenny CDP as Amenity Area 2 and 'View 19'.

4.3.5.2 Zone B: South-eastern environs of Ballinakill [Views 12 – 17]





View 14

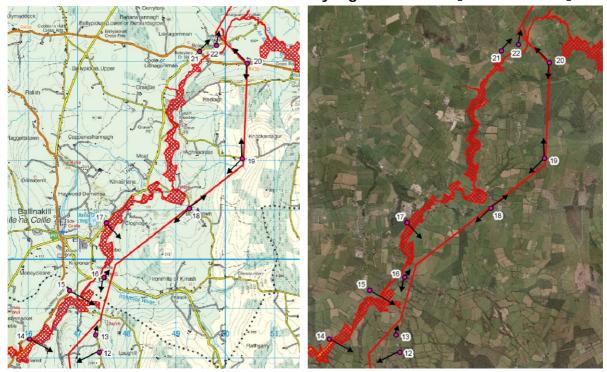


View 15



View 17

4.3.5.3 Zone C: Ballinakill Environs to Boleybeg Cross Roads [Views 17 – 20]

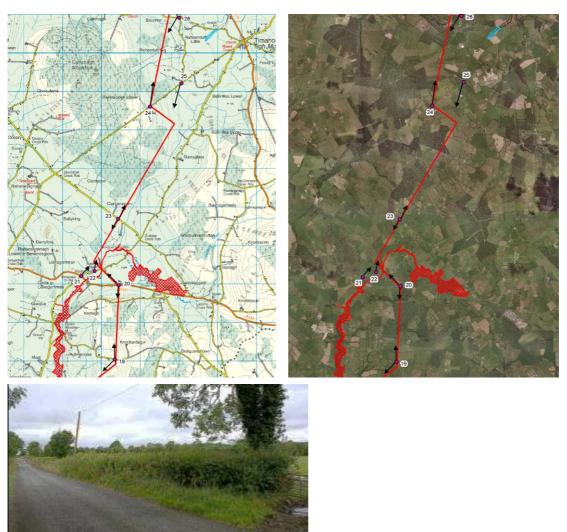






View 20b (to south)

4.3.5.4 Zone D: Boleybeg Cross Roads to eastern environs of Timahoe [Views 20 – 26]



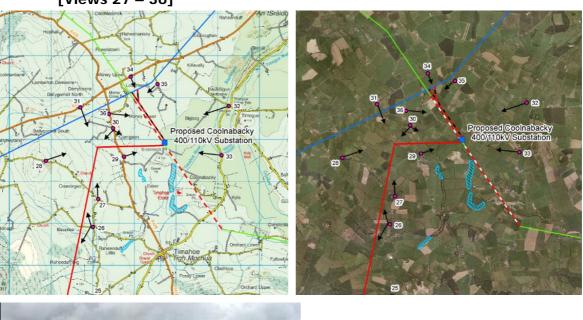
View 23



View 25

View 26

4.3.5.5 Zone E: Eastern environs of Timahoe to Money – Coolnabacky Environs [Views 27 – 36]





View 29



View 33



View 34



View 36

4.4 POTENTIAL IMPACT

4.4.1 POTENTIAL IMPACT ON TYPICAL LANDSCAPE FEATURES

This section identifies and describes how much landscape effect occurs and where. This allows the consenting authority to determine whether all reasonable efforts have been made to minimise adverse effects and whether the residual effects are compatible with the proper planning and sustainable development of the area. Finally, it allows them to decide whether any remaining adverse effects are proportionate to the benefits of the project.

It does not purport to establish that there are no adverse effects on the appearance or character of the landscape along the route. A route has been developed to minimise, but not remove all visual and landscape effects. Those that remain are the 'residual effects' that will occur if this project is permitted to proceed.

The analysis of residual effects concentrates on views that illustrate the range of area with the potential to give rise to 'worst case' impacts on the general landscape along the route. These usually consist of areas where the following factors occur:

- a large number of structures are potentially visible from a single viewing point;
- the line route crosses, or is in close proximity to, a scenic route;
- the line route crosses a national or regional road;
- the line route is potentially visible across a wide expanse of open countryside of a dominantly natural character;
- the line route crosses a skyline ridge;
- the line route is in close proximity to a river or lake at a point where there is visibility from public roads; or
- the line route crosses a visually conspicuous upland area.

These views are not representative of the landscape and visual effects of the whole route, indeed many are only visible from extremely localised viewing points, but they are provided to offer an indication of the likely maximum residual effect. There will generally be a lesser effect on the appearance and character of the landscape when seen from other areas along the majority of the route.

The analysis does not consider views from individual dwellings, nor does it consider visual impacts of individual towers. It is a generalised assessment of the residual effects of the overall project on the landscape.

In this type of landscape there are a number of potential landscape impacts that frequently arise:

- Siting of polesets or angle masts on top of hills;
- Alignments running along the centre of river valleys; and
- Alignments crossing rivers.

These typically give rise to the potential visual impacts detailed below.

Potential Visual Impacts

In general terms, the angle masts give rise to greater visual impact than the wooden polesets.

In general terms, the visual impact is greatest when the route is seen silhouetted against the sky and least when seen against a dark, visually complex background – such as mature forestry.

Potential Mitigation Measures

In general terms, the best – and only – mitigation measure is a route selection process that minimises visual intrusion on skylines, shorelines or waterbodies and that avoids or minimises excessive proximity or dominance on sensitive visual receptors – such as scenic routes, residences, tourism and leisure amenities and facilities.

4.4.2 VISUAL IMPACT

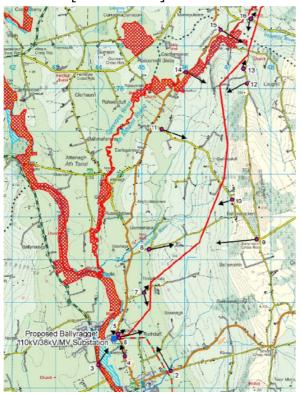
The likely effects of the proposed development have been assessed having regard to an examination of the route of the proposed works; a knowledge of the effects of existing transmission lines and substations in similar areas. It is also based on an assessment of the visual effects of this proposed development having regard to computer-generated simulations of the appearance of the project that have been prepared from the design drawings (including bird deflectors in the context of views 20b, 21 and 22 as relevant) and superimposed onto the photographs of the existing area.

4.4.2.1 Effects on Landscape Units

The following provides a description of the likely effects on the appearance and character of each of the parts of the landscape that have been identified as 'Landscape Units' - areas of approximately similar character - in the previous sections. These impacts are described in more detail in the following section by referring to photomontages.

Each landscape zone is described in terms of its context and character and the effects on each of the views within each landscape zone are summarised in tabular form, to assist readers in obtaining a comprehensive overview of all landscape and visual effects arising from this development.







General

The works associated with the construction of the substation at Ballyragget, adjacent to the existing substation there, will cause significant but localised changes to the appearance of the immediate vicinity – particularly to the graveyard immediately north of the substation on account of the removal of trees. These effects will be highly localised and will not significantly alter the appearance or visual amenity of the river and its environs or views from the R432 or the N 77.

The powerline project will cause localised changes on roads very close to the development. There will be limited impacts on the appearance or character of the wider landscape on account of the routing of the project relative to the most likely viewing points in this landscape.

The additional height and increased number of wires of the improvements to the existing line will give rise to a localised increase in the intensity of the established effect of the existing 110kV line.

Effects on Character

The existing long-established settled, working character of this landscape will not be significantly altered because of the precedence of significant levels of manmade dwellings, roads, utilities and agricultural structures that all form the character of the existing landscape.

Effects on Appearance

The project will not be obtrusively visible as seen looking eastwards from the N77 or the R432. The development will not appear to conspicuously break the skyline because of its alignment, nor will the route be significantly visible or obtrusive because it has been routed to be seen against backgrounds of established forestry and to generally align with field boundaries in these upper fields.

There will not be significant visibility from the sensitive views along Cromwell's Road and other high-level scenic drives in this area on account of intervening topography and forestry.

4.4.2.1.2 Zone B: South-eastern environs of Ballinakill [Views 12 – 17]

Ballinakili Baile na Coille Tesh Dogli 17 Connacon Moneycleare 15 Tohnmile River Tohnmile River Thomas Tohnus Tohnmile River Thomas Tohnus Tohnus Thomas Tohnus Toh

77

General

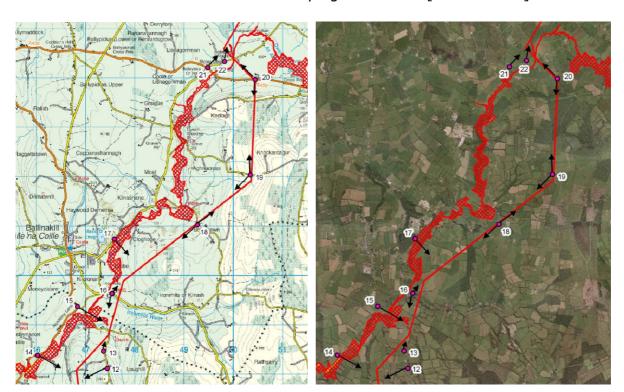
There will be localised visibility against the skyline where alignment of this part of the route crosses elevated lands. Such effects will be very localised on account of topography and vegetation that will screen visibility from nearby concentrations of receptors along either the R 432 and concentrations of housing in the south-eastern environs of Ballinakill.

Effects on Character

The proposed development will locally contrast with the largely undeveloped uplands in this zone – though this is mitigated by the relatively low levels of roads or residents affected and by the limited visibility of these effects [see below].

Effects on Appearance

The alignment means that the route passes between two small hills in the southern part of this zone – avoiding impacts on the skyline as seen from the R 432 while local road crossings in this area occur in the vicinity of hedgerows containing concentrations of mature trees. Further north the alignment, intervening topography and concentrations of matures trees along the river and associated slopes mean that views from the roads and environs to the east of Ballinakill will be very limited. There will be no effects on the Haywood Demesne or the gardens that it contains on account of topography, distance and the screening effects of the mature tree belt that surrounds the demesne.



4.4.2.1.3 Zone C: Ballinakill Environs to Boleybeg Cross Roads [Views 17 – 20]

General

This section of the route crosses some elevated areas that will give rise to some skyline views – though the numbers of roads and residences affected will be relatively few and the effects will occur at distances in excess of 1 km in most cases. There will be localised effects just north of Boleybeg Cross Roads where the route crosses a number of roads in a small area.

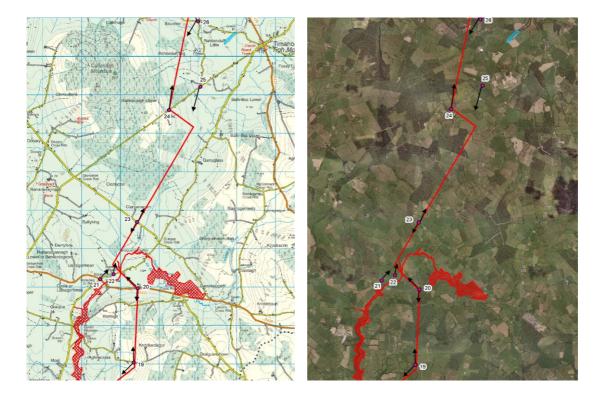
Effects on Character

The proposed development will locally contrast with the largely undeveloped uplands in this Unit – though this is mitigated by the relatively low levels of roads or residents affected and by the limited visibility of these effects [see below]

Effects on Appearance

The alignment means that the rout passes between two small hills in the southern part of this Unit – avoiding impacts on the skyline as seen from the R 432 while local road crossings in this area occur in the vicinity of hedgerows containing concentrations of mature trees. Further north the alignment, intervening topography and concentrations of matures trees along the river and associated slopes men that views from the roads and environs to the east of Ballinakill will be very limited. There will be no effects on the Haywood Demesne or the gardens that it contains on account of topography, distance and the screening effects of the mature tree belt that surrounds the demesne.

4.4.2.1.4 Zone D: Boleybeg Cross Roads to eastern environs of Timahoe [Views 20 – 26]



General

For much of this section the alignment crosses elevated and afforested lands that contain low levels of roads or dwellings – this results in very low levels of effects on the surrounding landscape – and no effects on the historic settlement of Timahoe or its environs.

Effects on Character

The proposed development will locally contrast with the largely undeveloped uplands in this Unit – though this is mitigated by the relatively low levels of roads or residents affected and by the limited visibility of these effects [see below]

Effects on Appearance

The visibility of the alignment within this Unit will mainly be concentrated around the few road crossings that exist – particularly where these coincide with views across falling ground. These roads are relatively lightly trafficked. There will also be effects on the views from residences close to such crossing points. The effects of such visibility as will occur will be significantly reduced by the high levels of forestry and scrub woodland within this Unit. The landscape opens up in the northern-most part of this unit, offering panoramic views to the north-east – though the route will be only intermittently visible in the area –from less travelled roads containing relatively few houses.

4.4.2.1.5 Effects on Zone E Eastern environs of Timahoe to Money – Coolnabacky Environs [Views 27 – 36]



General

West of the R426 the route will be only intermittently visible — from less travelled roads containing relatively few houses to the south and west and at a distance from the R427 in the context of the existing 400kV line. East of the R426 there will be a locally significant landscape effect due to the combination of the existing 400kV and 110kV lines, the proposed substation and the proposed 400kV link.

The proposed development will give rise to significant intensification of effects on the appearance and character of the landscape – in the area between the new substation and the exsiting existing 400kV line. These effects will very significantly intensify the developed character of this working landscape landscape in which large manmade structures are currently visible in the foreground and middle distance.

Effects on Character

The proposed development will constitute a significant intensification of an established character that arises from a pattern of non-agricultural development in the area – comprising two major roads, the existing powerlines and the sand and gravel pit.

Effects on Appearance

The project will significantly alter views from roads and residences in the area. The effects will occur in an area that has large fields and considerable distances between roads and associated residences.

4.4.2.2 Visual Impact and Viewing Points

Representative versus Comprehensive Assessment

Linear developments – such as powerlines – give rise to a specific and unique class of effects on the appearance and character of the countryside. A single or 'discrete' development' such as a typical house is visible from a relatively limited number of viewing points. Linear Projects, on the other hand, give rise to an almost infinite number of potential viewing points – though in practice from any given viewing point only a limited portion is visible.

For this reason the viewpoints used for analysis are not and cannot be a comprehensive analysis, instead, for this type of development representative analysis is used which seeks to examine and describe typical impacts on each of the landscape units along the route.

This analysis is, therefore, not a comprehensive description of every visual or landscape effect from every viewing point in the entire landscape because this is not possible. The objective is to illustrate the conclusions reached and the adverse impacts described in the section entitled – 'Landscape and Visual Effects of preferred route on Landscape Units'.

Representative Photomontages

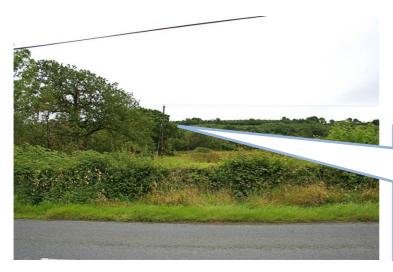
It is often pointed out that an even more open view is available from a point further along the road – or that a larger number of poles are openly visible from a different location. While these assertions usually prove to be correct, they do not undermine the validity of the exercise which is to identify the likely significance of the proposed development upon the appearance and character of the overall landscape.

The analysis below describes the likely effects on the appearance and character from each of 36 viewing points along the line route that attempt to summarise the potential 'worst case scenario', in this case the most potentially conspicuous sections of the line route. The reason for selecting each viewing point is described to highlight which aspect of the landscape is likely to be affected from the viewpoint. These will generally be seen to be those that illustrate the factors described above.

It should be noted that illustrations are often criticized because a piece of intervening foreground vegetation blocks the view of a particular tower or angle mast. The precise locations cannot be accurately predicted at the time of photography – for this reason each image includes a small insert showing [in red] the modelling of all of the development that is potentially visible from the viewing point – regardless of intervening vegetation or topography. These are reproduced in full size in Appendix 4.1.

Types of Photomontages used

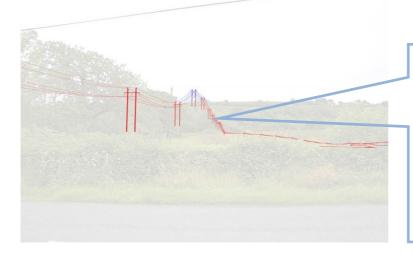
The views provided seek to illustrate the type of effect that will arise in each type of landscape along the route. Some parts of the landscape are more open than others and so some photomontages will show that more of the development will be visible in these areas than in others. A typical photomontage is described below. If a Photomontage shows that the line is partially screened by vegetation — this indicates that this will be a very typical effect in this part of the landscape. Three types of such circumstances are described below.



Existing View – photograph taken to examine the potential impact of the route crossing the skyline visible from the nearby road at a point where roadside vegetation is low enough to provide unobscured views



View with Proposed
Development – a computergenerated view of the new
development is superimposed on
the photograph. The image is
rendered to accurately illustrate
both the colour and the effects of
distance. Parts of the
development that will be
obscured by vegetation or
topography are omitted



View with 'Wireframe' of
Proposed Development – the
parts of the development that will
be seen from this location are
coloured in blue. The parts that
will be obscured are shown in
red. In this image the areas to
the left of centre are obscured by
vegetation while the areas on the
right of centre are obscured by
the intervening topography

Figure 4.5 Types of Photomontages Used







Typical 'Worst Case' Views where the route crosses a major road and where large number of towers are potentially visible from a single viewing point and where roadside vegetation is low enough to offer uninterrupted views for an extended period.

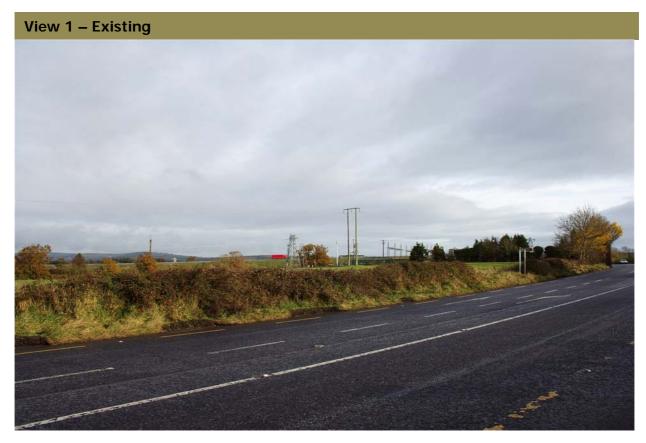


Typical Partial/Intermittent Visibility is, by far, the most commonly encountered impact along roads in rural Ireland because of the height and density of hedges. The photography attempts to identify 'worst case' visibility at gaps and gates. Despite this such views often contain partially obscured views and for this reason the 'red line' views allows an assessment of the 'worst case' – if there were no screening by hedges.



No Visibility is occasionally examined where there is a concern about the proximity of a route to a sensitive landscape feature [such as a skyline] or viewing location. In these cases the illustration confirms how the intervening topography and/or vegetation prevent visibility of this feature from this location.

4.4.3 **DETAILED ASSESSMENT OF VISUAL IMPACTS**



Location N10

Reason for Selection

Kilkenny Station on This location was selected as a 'worst case' where an unobstructed view is available from a busy road showing views of new structures against the skyline.

Description

The existing substation is visible in this oblique view that is not screened by the roadside screen planting. The site is set in a local topographic depression that ensures that much of the substation remains below the skyline.



Effects

The new angle mast is visible to the left of the centre of the photograph. It is seen in the context of established transmission infrastructure. The new works do not significantly alter the established appearance or character of the area as seen from this location.

View 2 - Existing



Location R 694 SE of Ballyragget

Reason for Selection

This location has been selected as being typical of a 'worst case' view of the existing line that is to be adjusted.

Description

A significant number of existing timber pole sets and conductors are clearly visible – in two conditions – i.e. receding into the distance and visible in sidereal elevation against a distant skyline. The context is typical of the large regular tillage fields encountered in this area.



Effects

The additional height and increased number of wires will give rise to a localised increase in the intensity of the established effect of the existing 110kV line.

The proposed development will give rise to very limited effects on the appearance or character of the landscape – as seen from this and similar locations.



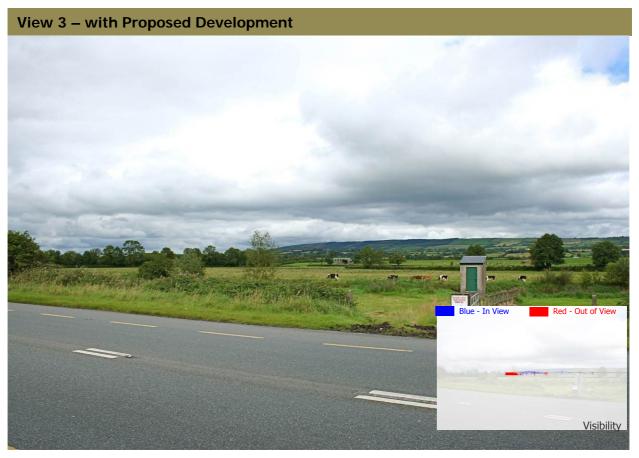
Location N77 west of Ballyragget

Reason for Selection

This is a 'worst case' viewing location because the absence of roadside vegetation offers unobstructed directly towards to location of the proposed substation and associated transmission structures.

Description

The large open fields in the foreground are typical riverside grazing areas; the middle distance contains a representative density of taller hedgerows with groupings of taller, mature trees. In the distance the different landscape of the uplands is visible with characteristic large areas of forestry and exiting telecommunication structures visible on the skyline near the centre of the photo.

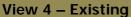


Effects

The upper portions of a number of structures will be distantly visible. No part of the substation will visible from this location.

Intervening hedgerows and mature trees screen views of the lower portions of the proposed development as seen from this location.

The proposed development will give rise to very limited effects on the appearance or character of the landscape – as seen from this location and its environs.





Location R432 S of Ballyragget

Reason for Selection

This location has been selected to illustrate a 'worst case' where the substation building and associated transmission structures have the potential to be visible through an opening in the tall hedgerows.

Description

The existing view currently includes the upper portions of substation equipment, transmission structures and the existing industrial structure – visible on the extreme left of the photograph.

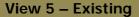


Effects

The substation building will contrast significantly with the established appearance, scale and building form and will be locally visually conspicuous. This effect will occur in combination with the increased size and visibility of the news lines.

The affected area will be confined to within the immediate environs of the substation site by the screening effects of mature trees and hedges.

There is some precedence for development within the immediate and wider environs on account of the existing substation and the diary plant [visible on left of photograph].





Location R432 east of Ballyragget Station

Reason for Selection

This location was selected to represent a typical 'worst case' from a busy road where a number of structures are visible across low hedges and large fields

Description

The large open fields that contain some existing transmission structures in the foreground are typical in this area; the middle distance contains a representative density of taller hedgerows with groupings of taller, mature trees. In the distance the different landscape of the uplands is visible with characteristic large areas of forestry are visible on the skyline.



Effects

The proposed development will be visible in the context of existing power infrastructure,

The proposed development will give rise to conspicuous local effects on the appearance and character of the landscape – as seen from this location and its environs – the effect will constitute an intensification of an established effect.

These effects will significantly alter the character which is of a working landscape in which a limited number of manmade structures are currently visible in the foreground and middle distance.

View 6 – Existing



Location R432 north of Ballyragget Station

Reason for Selection

This location was selected to illustrate a 'worst case' of an unscreened view towards the substation and associated transmission structures at a location from where the development will be seen against the skyline.

Description

The wall on the right and in the foreground is the boundary of a cemetery. The existing substation structures are visible to the left of the centre of the photograph.

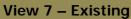


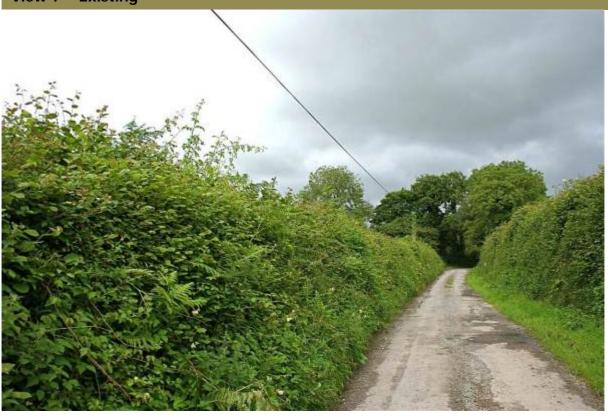
Effects

The substation building will contrast significantly with the established appearance, scale and building form and will be locally visually conspicuous. This effect will occur in combination with the increased size and visibility of the news lines.

The affected area will be confined to within the immediate environs of the substation site by the screening effects of mature trees and hedges.

There is some precedence for development within the immediate and wider environs on account of the existing substation.





Location
NE of Ballyragget
on local road –
looking east

Reason for Selection

This location was selected to examine typical effects where an angle mast is located close to a small road on rising ground.

Description

The roads in this area have uniformly tall dense hedges, many of which contain with groupings of taller, mature trees.



Views are highly screened by the density of existing hedges that line both sides of this road. There will be very few direct views of transmission structures from this road. Where views are available they are likely to be intermittent, occasional and limited by intervening mature trees and hedges.



Location NE of Ballyragget on local road – looking east

Reason for Selection

This location was selected to examine the potential for the line to be visible from a rising road and residences against the skyline.

Description

There are a small number of dwelling along this road. Most have their principle orientation toward the west/south west and a few are oriented north south to parallel the road. Occasionally field boundaries are tightly trimmed – as seen on the right – but even these are tall and obscure most views.



No part of the development will visible from this location.

Intervening topography, hedgerows and mature trees screen views of the proposed development as seen from this location.

The proposed development will give rise to no effects on the appearance or character of the landscape – as seen from this location and its environs

View 9 - Existing



Location Ballymartin northwest

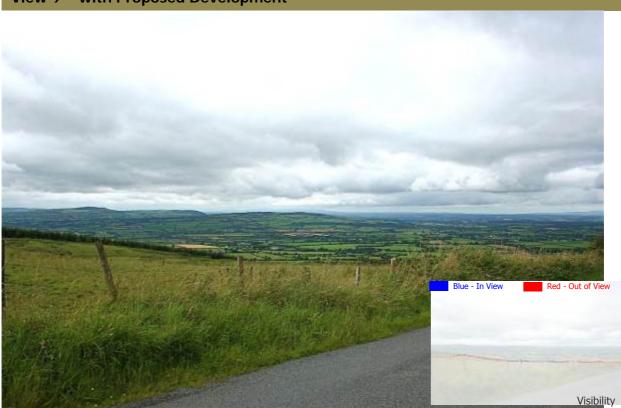
Reason for Selection

view occurs at a cross roads.

This is an important view for a number of reasons. It was selected Crossroads looking because of its designation in the Kilkenny County Development Plan and because the area to the north [right] is also designed as a scenic area. Apart from the designation it was also selected because it represents a 'worst case' of an elevated view across an expanse of landscape, with unobstructed views due to low roadside vegetation and also because the

Description

Expansive views across the nearby river valley as well as towards the Central plain are available from this location. In the foreground the upper portion of a band of forestry is visible as well as the pronounced break of slope that obscures the nearby hill side from this road.



View 9 – with Proposed Development

Effects

The upper portions of two structures are visible – but not readily discernible from this location on account of the intervening band of forestry and the break of slope. Note that the routing of the line in this location was specifically located close to these features to maximize the reduction prominence and visibility from both upland views [[such as this and views from the lowlands [such as View 11]

Intervening topography, hedgerows and mature trees screen views of the proposed development as seen from this location.

The proposed development will give rise to no effects on the appearance or character of the landscape – as seen from this location and its environs.

View 10 - Existing



Location

northwest

Reason for Selection

North of Ballymartin This location was selected because the area to the west is designed as a Crossroads looking scenic area; because this location provides an elevated view across an expanse of landscape.

Description

Occasional views across expansive landscape are available from gates and other openings in the tall hedges that line most of this road. Most of the views are towards the north along the length of the road.



A number of structures will be intermittently visible in the middle distance through gates and gaps in the tall hedges that line this road.

Intervening hedgerows and mature trees screen views of the lower portions of the proposed development as seen from this and similar nearby locations along this road.

The proposed development will give rise to very limited effects on the appearance or character of the landscape – as seen from this location and its environs

View 11 – Existing



Location

Reason for Selection

R432, looking east

Local Road, east of A typical view from this area showing the varying degrees of visual enclosure provided by roadside vegetation and mature trees.

Description

Views from the road across the open countryside are restricted by tall roadside vegetation except at gates and, as shown here, where a dwelling or entrance give rise to more frequent clearance that produce more open views.



No part of the development will visible from this location.

Intervening topography, hedgerows and mature trees screen views of the proposed development as seen from this location.

The proposed development will give rise to no effects on the appearance or character of the landscape – as seen from this location and its environs

Effects



Location Ballinakill, looking northwest

Reason for Selection

Local road south of This location has been selected because it represents a potential 'worst case because of the presence of elevated views across an expanse of landscape at an area with little screening roadside vegetation

Description

Occasional views across expansive landscape are available from gates and other openings in the tall hedges that line most of this road.



The upper portions of one structure will be distantly visible. Intervening hedgerows and mature trees screen views of the lower portions of the proposed development as seen from this location. The proposed development will give rise to very limited effects on the appearance or character of the landscape – as seen from this location and its environs



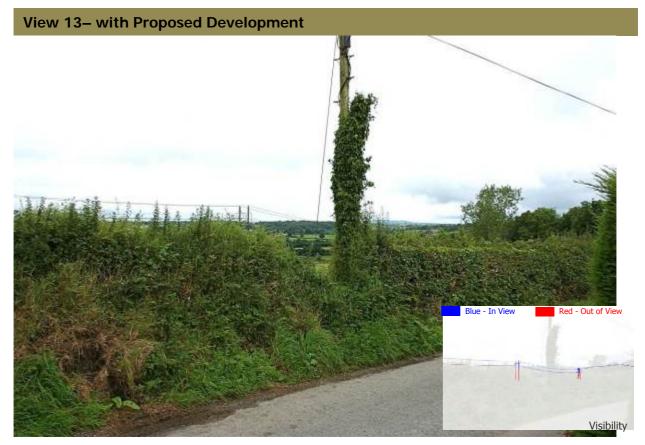
Location Local road south of Ballinakill, looking north

Reason for Selection

This location has been selected because it represents a potential 'worst case because of the presence of elevated views across an expanse of landscape at an area with less screening roadside vegetation

Description

Occasional views across expansive landscape are available from openings, such as this, in the tall hedges that line most of this road.



The upper portions two structures will be intermittently visible through a gap in the dense roadside hedging.

Intervening hedgerows and mature trees screen views of the lower portions of the proposed development as seen from this location.

The proposed development will give rise to very limited effects on the appearance or character of the landscape – as seen from this location and its environs.



Location R432, south of Ballinakill looking east

Reason for Selection

This location was selected to assess a potential 'worst case' of a view from a busy road toward a skyline crossing in an area with visible manmade structures.

Description

The foreground of this view is typical of the larger more regular lowland fields in this area — which are characterised by enclosure by a mixture of vigorous hedges with occasional clusters of mature trees. In the distance the different landscape of the uplands is visible with characteristic large areas of forestry are visible on the skyline.



The upper portions of three structures will be distantly visible against the skyline.

Intervening hedgerows and mature trees screen views of the lower portions of the proposed development as seen from this location.

The proposed development will give rise to limited effects on the appearance or character of the landscape – as seen from this location and its environs.

Effects

View 15 - Existing



Location R432, south of Lane] looking east

Reason for Selection

This location was selected to assess a potential 'worst case' of an Ballinakill [Academy unobstructed view from a busy road toward a skyline crossing in an area with visible manmade structures.

Description

The foreground of this view is typical of the larger more regular lowland fields in this area - which are characterised by enclosure by a mixture of vigorous hedges with occasional clusters of mature trees. In the distance the different landscape of the uplands is visible with characteristic large areas of forestry are visible on the skyline.

View 15 – with Proposed Development

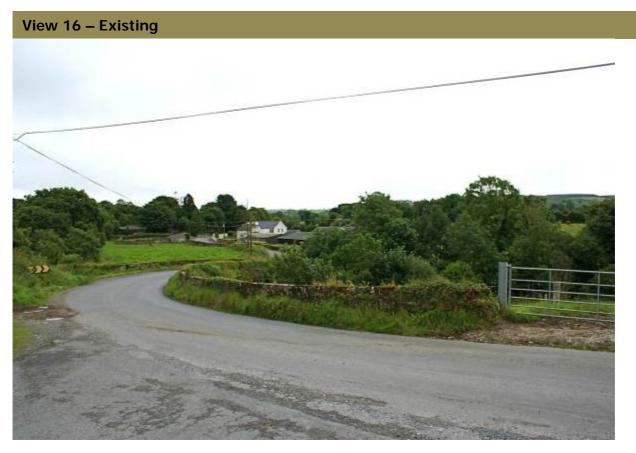


Effects

The upper portions of a number of structures will be distantly visible with two visible against the skyline.

Intervening topography, hedgerows and mature trees screen views of the lower portions of the proposed development as seen from this location.

The proposed development will give rise to limited effects on the appearance or character of the landscape – as seen from this location and its environs.



LocationKilcronan looking east

Reason for Selection

This location was selected to examine a 'worst case' of a road crossing close to a concentration of dwellings and roads.

Description

A small settlement centre is located in an enclosed area among mature trees is visually distinctive setting.



The upper portions of two structures of proposed development will be visible in the context of an established settlement centre.

The proposed development will give rise to locally conspicuous effects on the appearance and character of the landscape – as seen from this location and its environs – the effect will constitute an intensification of en established effect.

These effects will alter the established character which is of a settled area in which a number of manmade structures are currently visible in the foreground and middle distance.

View 17 – Existing



Location
East of Ballinakill
[near Haywood
Demesne] looking
east

Reason for Selection

This location was selected to assess a potential 'worst case' of a view from a road toward a skyline crossing in an area with visible manmade structures.

Description

The foreground and middle distance contain significant amounts of mature vegetation. There are intermittent views of distant upland landscapes.

View 17 – with Proposed Development



Effects

No part of the development will readily discernible from this location. Intervening topography, hedgerows and mature trees screen views of the proposed development as seen from this location.

The proposed development will give rise to no effects on the appearance or character of the landscape – as seen from this location and its environs.



Location Ballinakill, looking southwest

Reason for Selection

Bolybawn – east of This location was selected to examine a 'worst case' of a road crossing in an area with little roadside screening from where the line will be visible against the skyline.

Description

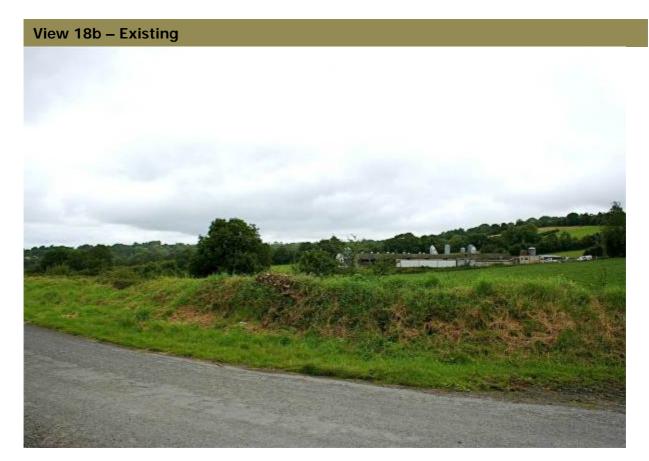
This is typical of the landscape in this area where dense trees and forestry are interspersed with large well maintained fields and occasional residences and farm structures.



Three structures will be fully visible and the upper portions of two other structures of proposed development will be visible in the context of a working landscape that contains relatively few existing manmade structures [see 18b for effects in combination].

The proposed development will give rise to locally conspicuous effects on the appearance and character of the landscape – as seen from this location and its environs.

These effects will alter the established character which is of a working landscape in which few manmade structures are currently visible.



Location Bolybawn – east of Ballinakill, looking northeast

Reason for Selection

This location was selected to examine a 'worst case' of a road crossing in an area with little roadside screening from where the line will be visible against the skyline.

Description

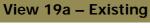
This is typical of the landscape in this area where dense trees and forestry are interspersed with large well maintained fields and occasional residences and farm structures.



The upper portions of 5 structures of proposed development will be visible in the context of a working landscape that contains a significant concentration of existing manmade structures.

The proposed development will give rise to locally conspicuous effects on the appearance and character of the landscape – as seen from this location and its environs.

These effects will alter the established character which is of a working landscape in which manmade structures are currently visible





LocationKnockardgur, looking north

Reason for Selection

This location was selected to assess a potential 'worst case' of a view from a road toward an expansive view that includes areas where the line is likely to be visible against the skyline.

Description

The foreground and middle distance contain significant amounts of mature vegetation. There are intermittent views of distant landscapes.



The upper portions of one structure will be visible in the middle distance. Intervening hedgerows and mature trees screen views of the lower portions of the proposed development as seen from this location. The proposed development will give rise to limited effects on the appearance or character of the landscape – as seen from this location and its environs.

View 19b – Existing



Location Knockardgur, looking south

Reason for Selection

This location was selected to assess a potential 'worst case' of a view from a road toward an expansive view that includes areas where extensive lengths of the line is likely to be visible.

Description

The foreground and middle distance contain significant amounts of mature vegetation. There are intermittent views of distant landscapes.

Blue - In View Red - Out of View

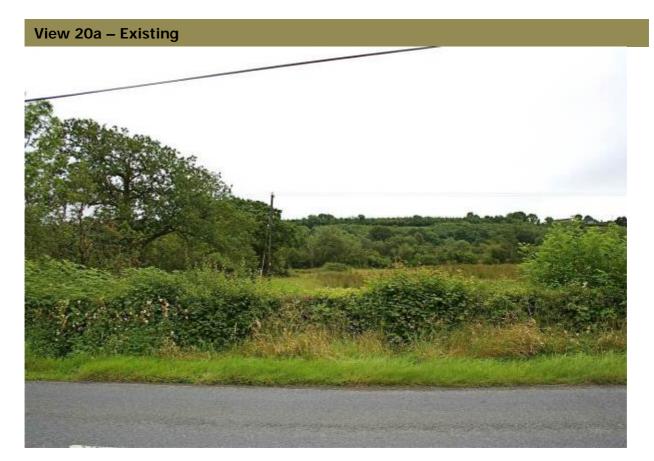
View 19b – with Proposed Development

Effects

The upper portions of a number of structures will be visible in the distance.

Intervening hedgerows and mature trees screen views of the lower portions of the proposed development as seen from this location.

The proposed development will give rise to limited effects on the appearance or character of the landscape – as seen from this location and its environs.



Location R430, east of Boleybeg looking south

Reason for Selection

This location was selected to assess a potential 'worst case' of a view from a road towards a view that includes a location where the line is likely to be visible against the skyline.

Description

The foreground and middle distance contain significant amounts of mature vegetation.



The upper portions of one structure will be visible in the middle distance – with two being visible against the skyline – in the context of an established pattern of existing manmade structures.

Intervening hedgerows and mature trees screen views of the lower portions of the proposed development as seen from this location.

The proposed development will give rise to limited effects on the appearance or character of the landscape – as seen from this location and its environs.

View 20b – Existing



LocationR430, east of
Boleybeg looking
north

Reason for Selection

This location was selected to assess a potential 'worst case' of a view from a road towards a view that includes a location where the line is likely to be visible against the skyline.

Description

There is very limited visibility of the surrounding countryside from this side of the road at this location.



The upper portions of three structures will be visible in the middle distance – with two being visible against the skyline – in the context of a local landscape with few visible manmade structures.

Intervening hedgerows and mature trees screen views of the lower portions of the proposed development as seen from this location.

The proposed development will give rise to local effects on the appearance or character of the landscape – as seen from this location and its environs.

View 21 – Existing



Location R430, east of

R430, east of Boleybeg looking north

Reason for Selection

This location was selected to examine the potential of the line to be visible from a busy road junction – this location has the potential to be a 'worst case' because a number of structures have the potential to be visible from here.

Description

In the middle distance there are extensive areas of mature trees – both trees and hedges.



No part of the development will visible from this location.

Intervening topography, hedgerows and mature trees screen views of the proposed development as seen from this location.

The proposed development will give rise to no effects on the appearance or character of the landscape – as seen from this location and its environs.



Location North of Boleybeg looking north

looking Reason for Selection

This location was selected to assess a potential 'worst case' of a view from a road crossing towards a location where the line is likely to be visible against the skyline.

Description

The foreground and middle distance contain significant amounts of mature vegetation.



The upper portions of a number of structures will be visible in the middle distance.

Intervening hedgerows and mature trees screen views of the lower portions of the proposed development as seen from this location.

The proposed development will give rise to limited effects on the appearance or character of the landscape – as seen from this location and its environs.



LocationClarbarracum, looking north

Reason for Selection

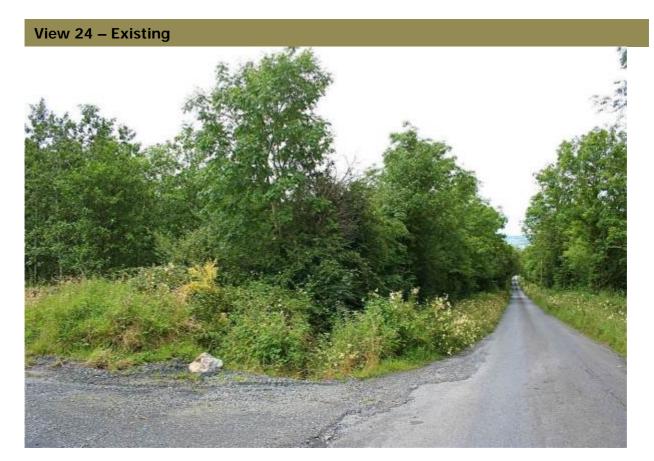
This location was selected to assess a potential 'worst case' of a view from a road crossing towards a location where the line is likely to be visible against the skyline.

Description

The foreground and middle distance contain significant amounts of mature vegetation.



The upper portions of one structure will be visible in the foreground – in the context of an established pattern of existing manmade structures. Intervening hedgerows and mature trees screen views of the lower portions of the proposed development as seen from this location. The proposed development will give rise to limited effects on the appearance or character of the landscape – as seen from this location and its environs.



LocationBallinaclogh North
Upper, looking
north

Reason for Selection

This location was selected to assess a potential 'worst case' of an elevated view from a road crossing towards a location where the line is likely to be visible against an expanse of countryside.

Description

The foreground and middle distance contain significant amounts of mature vegetation screening views of the distant countryside.



No part of the development will visible from this location.

Intervening topography, hedgerows and mature trees screen views of the proposed development as seen from this location.

The proposed development will give rise to no effects on the appearance or character of the landscape – as seen from this location though there will be intermittent views through occasional gaps in the dense roadside hedgerows in the nearby environs.





LocationBallnaclogh Lower, looking south

Reason for Selection

This location was selected because it has the potential to offer a 'worst case' view across an expanse of countryside seen from an elevated viewing point on a road with low roadside screening.

Description

This view encompasses expanses of countryside where the foreground and middle distance contain significant amounts of mature vegetation and relatively few manmade structures. There are distant views toward uplands that contain areas of forestry



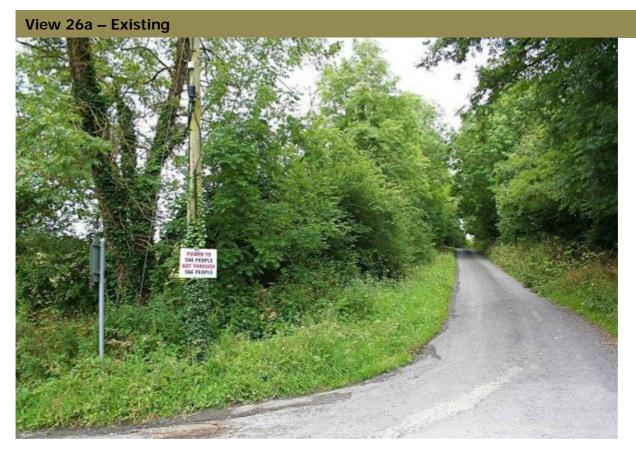
View 25 – with Proposed Development

Effects

The upper portions of a number of structures will be visible in the middle distance – with three visible against the skyline.

Intervening hedgerows and mature trees screen views of the lower portions of the proposed development as seen from this location.

The proposed development will give rise to effects on the appearance or character of the landscape – as seen from this location and its environs.



Location looking north

Reason for Selection

Baunree/Raheenduff, This location was selected to assess a potential 'worst case' of a view from a road crossing towards a location where the line is likely to be visible against the skyline.

Description

The foreground and middle distance contain significant amounts of mature vegetation screening views of the distant countryside.



No part of the development will visible from this location.

Intervening topography, hedgerows and mature trees screen views of the proposed development as seen from this location.

The proposed development will give rise to no effects on the appearance or character of the landscape – as seen from this location and its environs.



Location looking east

Reason for Selection

Baunree/Raheenduff, This location was selected to assess a potential 'worst case' of a view from a road crossing towards a location where the line is likely to be visible against the skyline.

Description

The foreground and middle distance contain significant amounts of mature vegetation screening views of the distant countryside.

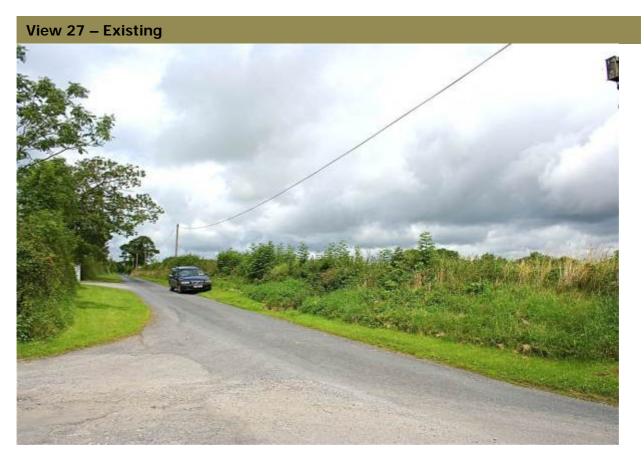


Effects

No part of the development will visible from this location.

Intervening topography, hedgerows and mature trees screen views of the proposed development as seen from this location.

The proposed development will give rise to no effects on the appearance or character of the landscape – as seen from this location and its environs.



Location north

Reason for Selection

Cremorgan, looking This location was selected to assess a potential 'worst case' of a view from a road crossing towards a location where the line is likely to be visible against the skyline.

Description

The foreground and middle distance contain mature vegetation screening views of the distant countryside.



The upper portions of one structure will be visible in the middle distance. Intervening hedgerows and mature trees screen views of the remainder of the proposed development as seen from this location.

The proposed development will not give rise to readily discernible effects on the appearance and character of the landscape – as seen from this location and its environs.



Location Cremorgan looking east

Reason for Selection

This location was selected to examine the potential effects on views from an elevated area across an expanse of countryside

Description

This view is typical of the appearance of the large fields in this area and of the expansive views across an expanse of countryside. Note that the upper portions of an existing transmission line are visible in the middle distance.



No part of the development will visible from this location.

Intervening topography, hedgerows and mature trees screen views of the proposed development as seen from this location.

The proposed development will give rise to no effects on the appearance or character of the landscape – as seen from this location and its environs.



Location Cremorgan looking south

Reason for Selection

This location was selected to examine the potential effects on views from an elevated area across an expanse of countryside

Description

This view is typical of the appearance of the large fields in this area and of the expansive views across an area of countryside that contains significant amounts of mature trees. Upland areas are visible in the distance. Few manmade structures are visible in this view.



The upper portions of one structure will be visible in the distance. No part of the substation will visible from this location.

Intervening hedgerows and mature trees screen views of the remainder of the proposed development as seen from this location.

The proposed development will not give rise to readily discernible effects on the appearance and character of the landscape – as seen from this location and its environs.



Location R428, Ballygormhill South looking east

Reason for Selection

This location was selected to examine the potential effects on views from an elevated area across an expanse of countryside

Description

This view is typical of the appearance of the large fields in this area and of the expansive views across an area of countryside that contains significant amounts of mature trees. Upland areas are visible in the distance. Few manmade structures are visible in this view.



The upper portions of a number of structures [7] will be visible in the middle distance. The upper portion of some structures at the substation will also visible from this location.

Intervening hedgerows and mature trees screen views of the remainder of the proposed development as seen from this location.

The proposed development will give rise to readily discernible effects on the appearance and character of the landscape – as seen from this location and its environs.

These effects will significantly alter the character which is of a working landscape in which few manmade structures are currently visible in the foreground and middle distance.



Location

R428, east south

Reason for Selection

of This location was selected to assess a potential 'worst case' where a Cremorgan, looking number of structures would be visible – some on the skyline – close to the road through a gateway.

Description

This is a typical view in this area where most views are screened by taller hedges - except where openings for gates occur - or where occasionally [see View 30b] the roadside vegetation has been removed or trimmed. The landscape in the distance contains substantial quantities of dense vegetation - both mature trees and taller hedges - of the type so frequently encountered south of this location [i.e. Zones C and D].



A poleset will be fully visible from the roadway though this entrance. The upper portions of A number of other structures will be more distantly visible – with portions visible against the skyline.

Intervening hedgerows and mature trees screen views of the lower portions of the proposed development as seen from this location.

The proposed development will give rise to noticeable effects on the appearance or character of the landscape – as seen from this location and its environs.



Location R428, east of east

Reason for Selection

This location was selected to examine the potential effects on views from Cremorgan, looking an elevated area across an expanse of countryside

Description

This view is typical of the appearance of the large fields in this area and of the expansive views across an area of countryside that contains significant amounts of mature trees. Upland areas are visible in the distance. Few manmade structures are visible in this view.



The upper portions of a number of structures will be distantly visible – with portions visible against the skyline.

Intervening hedgerows and mature trees screen views of the lower portions of the proposed development as seen from this location.

The proposed development will give rise to noticeable effects on the appearance or character of the landscape – as seen from this location and its environs.

View 31 – Existing



Location

Reason for Selection

R427, looking south This location was selected to examine the potential effects on views from an elevated area across an expanse of countryside

Description

This view is typical of the appearance of the large fields in this area and of the expansive views across an area of countryside that contains significant amounts of mature trees. Upland areas are visible in the distance. Few manmade structures are visible in this view. . Reason



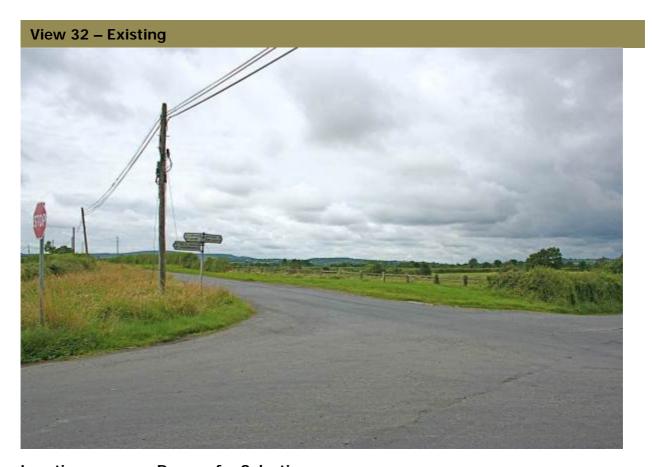
View 31– with Proposed Development

Effects

No part of the development will visible from this location.

Intervening topography, hedgerows and mature trees screen views of the proposed development as seen from this location.

The proposed development will give rise to no effects on the appearance or character of the landscape – as seen from this location and its environs.



Location

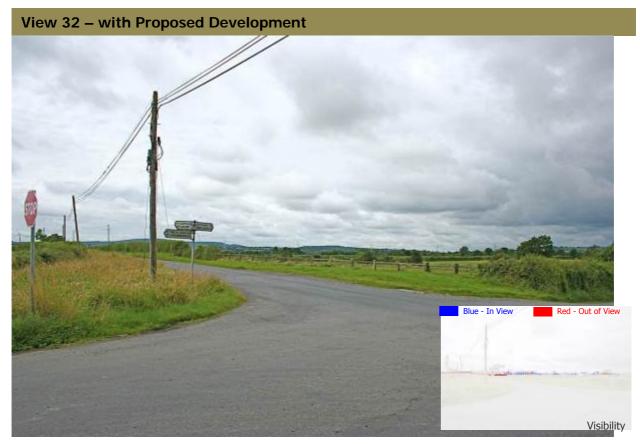
Reason for Selection

Timogue

Cross This location was selected to examine a 'worst case' of unscreened views Roads, looking west from a crossroads towards the location of the substation.

Description

Very expansive and unscreened views are available across a landscape that contains significant quantities of mature trees.



the proposed development as seen from this location.

Effects

The upper portions of a number of structures [7] will be visible in the middle distance. No part of the substation will visible from this location. Intervening hedgerows and mature trees screen views of the remainder of

The proposed development will give rise to readily discernible effects on the appearance and character of the landscape – as seen from this location and its environs.

These effects will not significantly alter the character which is of a managed and occupied landscape in which existing utilities are an established feature.



Location Coolnabacky looking west

Reason for Selection

This location was selected to examine the potential effects on unscreened views directly towards the substation across an expanse of countryside

Description

This view is typical of the appearance of the large fields in this area and of the expansive views across an area of countryside that contains significant amounts of mature trees. Few manmade structures are visible in this view.



The upper portions of one structure will be prominently, if distantly, visible to the right of the centre of the image. Upper portions of other structures will be partially visible – on right of image. No part of the substation will visible from this location.

Intervening hedgerows and mature trees screen views of the proposed development as seen from this location.

The proposed development will give rise to limited effects on the appearance or character of the landscape – as seen from this location and its environs.

View 34 – Existing



Location R427, Killavally, looking south

Reason for Selection

This location was selected to assess a 'worst case' of unscreened views towards a concentration of new and existing structures and the substation – as seen from a busy road.

Description

Expansive views are available across open countryside of tillage fields set among mature trees with distant views of afforested upland areas. Existing large transmission structures are currently visible in this area.



View 34 – with Proposed Development

Effects

The upper portions of a number of structures [9] will be visible in the foreground and middle distance – some against the skyline. No portion of the substation will be visible from this location.

Intervening hedgerows and mature trees screen views of the lower portions of the proposed development as seen from this location.

The proposed development will give rise to significant intensification of effects on the appearance and character of the landscape – as seen from this location and its environs.

These effects will very significantly intensify the developed character of this working landscape in which large manmade structures are currently visible in the foreground and middle distance.



LocationKillavally, looking west

Reason for Selection

This location was selected to assess a 'worst case' of views towards a concentration of new and existing structures and the substation – as seen from a local road.

Description

There are occasional distant views of afforested upland areas. Existing large transmission structures are currently visible in this area.



The upper portions of a number of new structures will be visible in the foreground and middle distance in the context of established power infrastructure. No portion of the substation will be visible from this location.

Intervening hedgerows and mature trees screen views of the lower portions of the proposed development as seen from this location.

The proposed development will give rise to an intensification of exiting significant effects on the appearance and character of the landscape – as seen from this location and its environs.

These effects will intensify the character which is of a working landscape.

View 36 – Existing

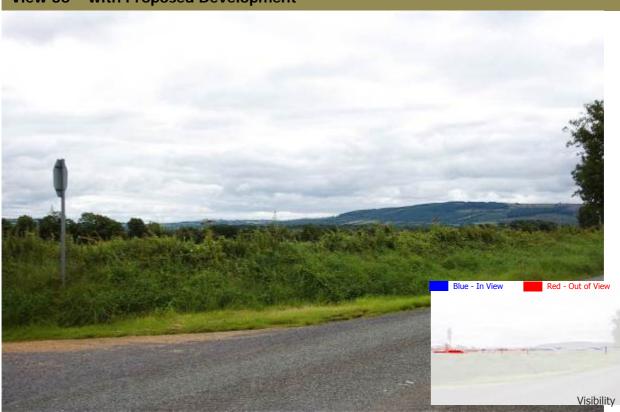


Location Reason for Selection

RR426, south of This location was selected to assess a 'worst case' of unscreened views Money Crossroads, towards a concentration of new and existing structures and the substation looking east — as seen from a busy road.

Description

Expansive views are available across open countryside of tillage fields set among mature trees with distant views of afforested upland areas. Existing large transmission structures are currently visible in this area.



View 36 – with Proposed Development

Effects

The upper portions of a number of structures will be distantly visible. No part of the substation will visible from this location.

Intervening hedgerows and mature trees screen views of the proposed development as seen from this location.

The proposed development will give rise to very limited effects on the appearance or character of the landscape – as seen from this location and its environs.

4.5 MITIGATION

The principal landscape mitigation method employed was the route selection process. This was carried out to anticipate, avoid or minimise the location of the proposed route in areas likely to give rise to significant adverse effects on the appearance or character of the landscape. This approach avoided the environs of settlements, minimised crossings of water bodies or prolonged routing along prominent upland ridges.

4.6 RESIDUAL IMPACT

Residual Impacts

The character and appearance of unscreened lands within 50 - 150m of the line and uses thereon will be significantly altered. Where routes have been selected that involve crossings that locate poles and angle masts on higher grounds the extent of the area affected will be increased – though the extent and significance of such increases will itself be confined by the same elevated features. The route selection generally avoided concentrations of rural residences and will have limited effects on the appearance and character of settlement centres and their approaches. The route selection and design were heavily influenced by the existence and significance of designated views, routes and prospects – effects on these have been limited so that residual impacts, though present, have been minimised.

Inter-Relationship with Environmental Factors

There are cumulative impacts where the proposed line is seen within the context of existing lines – such as occurs around the existing substations as well as where the route closely parallels existing routes. Specific instances of cumulative landscape effects have been illustrated and described at Views 5, 28a, 31, 34, and 35.

This section should also be read in conjunction with Section 3 Human Beings and Population and Section 5 Cultural Heritage for a full understanding of the main interactions between these environmental topics.