

6.0 LANDSCAPE AND VISUAL

6.1 INTRODUCTION

The landscape and visual impact (LVIA) assessment for the proposed development at Lumcloon, Co Offaly is discussed in this Chapter. This assessment considered the potential landscape and visual effects of the proposed Power Plant on the baseline resources of the application site and its surrounding area. The methodology of the assessment is outlined below followed by a detailed assessment of existing conditions, resource change, landscape and visual impact and recommendations for any mitigation measures for the proposal.

6.2 METHODOLOGY

A number of relevant documents and websites were reviewed to establish a specific approach and technique to the landscape and visual impact assessment. These include the following:-

- Guidelines for Landscape and Visual Impact Assessment (2nd Edition) by the Landscape Institute and the Institute of Environmental Management and Assessment 2002;
- National Parks and Wildlife Service of Ireland (NPWS), www.npws.ie;
- Offaly County Council – County Development Plan 2009-2015;
- The Environmental Protection Agency (EPA) '*Guidelines on the Information to be contained in Environmental Impact Statements*' and '*Advice Notes on Current Practice in the Preparation of Environmental Impact Statements*', published in 2002 and 2003.

All feasible and reasonable attempts have been made to ensure that the information provided by a range of public sector institutions and presented in this report is accurate and up-to-date. Park Hood is not responsible for accidental perpetuation of inaccuracies in these records and any consequent effect on the conclusions in this report.

6.2.1 Landscape and Visual Assessment Stages

The Landscape and Visual Assessment studies the potential effects of the proposed Power Plant and associated infrastructure on the visual resources of the site and its surroundings and the impact on the general landscape character of the application site and the surrounding midlands landscape. The methodology of the assessment is outlined below followed by a

detailed assessment of existing conditions, resource change, landscape and visual impact and recommendations for any mitigation measures for the proposal.

6.2.1.1 LVA Stage One: Baseline Landscape Description and Evaluation

LVA Stage 1 sets out to describe, classify and evaluate the landscape character parameters of the study area and summarise the visual setting focusing on its sensitivities and ability to accommodate change.

This is established through a process of site surveys (undertaken between April and June 2009) and desktop study including searches of relevant internet sites, examination of current and historical maps and aerial photographs. The maps include those produced by Ordnance Survey Ireland "Discoverer Series" Sheets 47, 48, 53 and 54 and recently undertaken topographical site surveys of the application site itself.

Appraisal included evaluation of the quality, importance and value of the existing landscape and any interrelationships in the overall landscape patterns. Visual reference points were identified in locations open to public access in areas surrounding the site where there was either existing views or where there may be visual effects deriving from the proposal. The selection was also based on determination of the actual *visibility* of the site from key points or where there were significant numbers of likely visual receptors. Once evaluated and classified, it allows a level of importance to be attached and against this the changes can be assessed.

6.2.1.2 LVA Stage Two: Nature and Scope of Proposed Development and Mitigation Measures

LVA Stage 2 sets out to identify the key elements that make up the proposal and judge the likely sources of landscape character and visual effects arising from the development including any mitigation measures considered at design or construction stages and at completion.

6.2.1.3 LVA Stage Three: Statement of Significance of Effects on Landscape Character & Visual Amenity

LVA Stage 3 assesses the magnitude and significance of the changes to the landscape character and visual setting as a result of the development. The assessment of the existing landscape character is based on the subjective interpretation of the physical and aesthetic characteristics based on definitions and terminology described in the appendix.

The significance is dependant on the sensitivity of the affected landscape or visual receptor and the magnitude of change that is judged to have resulted from the development. Associated mitigation measures that may help to remedy any effects are also discussed.

Landscape Effects	<p>The likely nature and scale of changes to individual landscape elements and characteristics.</p> <p>The consequential effect of the landscape character and quality, resulting from the proposal.</p>
Visual Effects	<p>The change in the character of the available views resulting from this proposal.</p> <p>The changes in the visual amenity of the receptors (i.e. those who will see it).</p>

To consider the magnitude and significance of any change to the existing situation, the following issues were taken into account:-

- The sensitivity of the view takes into account both the public accessibility of the land where views are possible and the likely sensitivity of that view given the distance, travelling speed, intervening vegetation and land usage;
- The quality and value of the existing landscape at each Visual Reference Point (as determined above) were also taken into consideration in determining the effects
- The degree to which the proposal will be visible within the surrounding area;
- Any other changes in the existing landscape e.g. new road junctions.

6.3 EXISTING LANDSCAPE CHARACTER

6.3.1 Site Location

The 11 acre brownfield site for the proposed Power Plant is located near Lumcloon, Co. Offaly on the R357 road, approximately 5km south of Ferbane, 20 km west of Tullamore and 22km south of Athlone, see Figure 6.1 attached.

6.3.2 Contextual Landscape Character

The place-name Lumcloon is derived from the Irish words *Lom* and *Cluain*. Lom means bare and Cluain meadow and this serves as a relatively good description of the contextual

landscape within the Bog of Allen which is the largest complex of raised bog in Ireland, covering 370 square miles across the midlands. See Figure 6.2.

6.3.2.1 Landscape Characteristics

The key landscape characteristics can be summarised as follows:

- Distinctive flat, expansive landscape with large tracts of commercially cut peatlands;
- Minimal topographical variations across the surrounding landscape;
- Open commercial peatlands (associated with former or declining activities by Bórd na Móna) are linked by industrial features such as a narrow gauge industrial rail network and extensive drainage systems;
- Areas of cutaway peatland that comprise a combination of wetlands, lakes with bank areas subject to colonising scrub vegetation;
- Significant tracts of conifer forestry plantations at varying stages of maturity;
- Farmland, predominantly pastureland with significant areas of marginal less intensively managed fields bounded by straight mature hedgerows with occasional groups of mature trees;
- Straight main roads across bog-land areas that link into a network of narrow lanes and roads bound by hedgerows;
- Electricity pylons and transmission lines are notable features in this flat landscape.

In summary the landscape is very open, flat and expansive but would be described as being in transition on account of the industrial scale peat cutting operations undertaken on this land in the 20th century and the subsequent after-use including significant tracts of conifer forestry that form a mixed landscape pattern. Away from the peatland areas are open field areas that vary in quality depending on existing management. Recent efforts have been made to introduce tourism related land-uses on less damaged or restored peatland areas. This includes the Lough Boora Parklands and the promotion of designated walking routes on Grand Canal Way and The Offaly Way.

6.3.2.2 Settlement and Access

Settlement in this area is very sparse with infrequent single dwellings generally located along roadsides and larger houses associated with farmsteads set back off private lanes. There are significant areas devoid of any built elements. Groupings of properties are occasionally found at road junctions. The village of Ferbane (population c. 800) is located approximately 5.2km to the north on the River Brosna and its name is integrally linked with the former peat fuelled

power station at the application site. The only other settlements of note within a 15km radius of the site are Banagher and Kilcormac.

The R357 Road traverses between Cloghan (4.5km due west) and Blueball (12km due east). The R437 Road runs from Kilcormac to meet the R357 approximately 1km west of the site. Other roads in the locality are narrow 3rd class lanes or local farm access tracks (typically concrete or gravelled). The main roads tend to be slightly elevated above the peatlands and traverse the landscape in a straight manner while lanes and tracks are confined by thickset hedgerows.

Located approximately 17km to the north-west is the historic monastery at Clonmacnoise (established 545 AD) which is an important pilgrimage and tourist destination attracting 300,000 visitors per annum. The Grand Canal (dating from 1756 to 1803) is located approximately 2km to the north of the application site.

Lough Boora Parklands

A key feature of the local landscape is the Lough Boora Parklands. The application site is located between this series of parklands which are projects instigated by the Lough Boora Parklands Group (since 1994) for creating recreational areas and wildlife habitats in large tracts of cutaway peatlands with a 'Green Tourism' agenda. The public parklands comprise wetland areas, fishing lakes, deciduous and coniferous forestry, pastureland, over 50km of walkways and a sculpture park containing a number of permanent large scale exhibits. They have been well promoted on tourist sites and have instigated an increase in visitor numbers to this area though there is currently no Failte Ireland approved accommodation in this area. The closest part of these Parklands lies approximately 3km to the east of the proposed development site.

6.3.3 Landscape Character – Application Site

6.3.3.1 Land Use and Vegetation Cover

The current site is of a brownfield nature and is a flat area with remnant hard surfaces with small areas of peripheral woodland plantations that have matured. Incidental ornamental shrubs are located along the R357 Road in amongst more mature trees but these are somewhat out of context with the local landscape vegetation. Grasses and weed have colonised the open ground since demolition with taller scrub becoming established on peripheral areas. Hedgerows are located on most site boundaries. The area has not been subject to any land use or management for some time. See Figure 6.3.

The application site served as Ireland's first milled peat fired power plant operated by ESB. There are currently four 110 kV pylons to the west of the site and these are the only significant vertical elements that suggest the former land-use on this site. The most significant features were two reinforced concrete cooling towers that were 87m high with 56m diameter bases. These hyperbolic shaped towers were well known landmarks in the midlands landscape, Refer to Section 2.1.1.1. The built elements also included tall flues, plant and generating buildings making up the power plant but all traces were demolished by 2002, see Figure 6.4 attached.

A couple of sheds were retained just to the south of the application site area and these are of a utilitarian nature. Some materials storage is still facilitated on the site. Remnants of the light industrial railway are evident to the east of the site. The application site is set within a landscape predominantly in open pastureland that merges into extensive conifer plantations to the south and east and bound by vast areas of cutaway peatlands.

The site bounds the R357 Road to the north for approximately 350 linear meters with a single existing site access located off this straight section of road. There is no access to the application site area off the minor (unnamed and unnumbered) lane that abuts the western boundary of the site. There is an entrance just to the south of the application site that would have provided access to the former power plant. Both entrances are gated and locked to prevent access. Settlement in the local area is very sparse with properties limited to single detached properties or farmsteads. Approximately 12 properties are located within 1km of the application site and these are predominantly located to the south and west away from the commercial peatland areas.

6.3.3.2 Topography and Drainage

The application site appears very flat and levels vary between +45m on the west boundary to +47m on the eastern boundary. To the north, across the R357, the land falls slightly towards the Grand Canal, which flows west towards the River Shannon, but in overall terms this is a very flat landscape with very gradual, almost imperceptible variations in topography.

The Silver River flows along the eastern site boundary and there is evidence of a complex of historical drainage channels converging on this watercourse from the surrounding landscape areas. There is evidence on site of former engineered drainage system to facilitate surface water run-off during its operational period.

6.3.4 Landscape Designations

6.3.4.1 Development Plan Designations

The following designations pertinent to this site were identified in the Offaly County Council Development Plan 2009-2015. See Figure 6.5 attached.

Landscape Classification - Sensitivity Class	<p>The application site is located in an area classified as "low sensitivity" which are summarised as areas that have "natural enclosing features (e.g. topography, vegetation) which have the capacity to absorb a range of new development".</p> <p>Beyond the application site, the wider peatlands including the Lough Boora Parklands carry a "high sensitivity".</p>
Scenic Amenity Routes	<p>The application site abuts the R357 Road to the immediate north of the site, which is a part of the R357 Blueball to Shannonbridge Scenic Amenity Route.</p> <p>This section of road is considered part of a tourist route approach to Clonmacnoise to the north-west.</p>
Views & Prospects	<p>Three "Views & Prospects of Special Amenity Value or Special Interest'" are designated within the study area (V10, V11 & V12). These viewpoints are towards the Slieve Bloom Mountains or across the Bog of Allen and are not focused towards the application site or its peripheral landscape areas.</p>
Landscape Designation - High Amenity : Lough Boora Parklands	<p>The application site is located between the Lough Boora Parklands Complex designated as an Area(s) of High Amenity.</p> <p>This designation however, does not ingress onto any part of the application site.</p>

6.3.4.2 Other Local Designations & Features

Other notable designations and features within the study area and of significance to the landscape character of the area are identified in National Parks and Wildlife Service of Ireland (NPWS) website or on local Ordnance Survey Discoverer Series Maps.

Proposed Natural Heritage Areas	Grand Canal pNHA (002104): located 2km north of the application site at its closest point. Lough Boora pNHA (001365): located 2.5km to the south-east of the application site at its closest point.
Waymarked Ways	The Offaly Way: Part of this Way traverses the landscape to the east of application site, from Kilcormac, through Lough Boora Parklands towards the Grand Canal. The Grand Canal Way: This route runs along the Grand Canal, approximately 2km north of the application site at its closest point.
Public Park	The Lough Boora Parklands Complex comprises a number of publicly accessible parks in the study area located around the application site. This includes the archaeological site at the Lough Boora Mesolithic Site.

6.3.5 Existing Visual Amenity and Visual Reference Points

Given the nature of the proposal, it is considered necessary to broaden the landscape evaluation to all areas that are likely to have views of the proposed Power Station rather than limit evaluation to the site itself. The evaluation includes a visual assessment from thirteen different Visual Reference Points (VRP) set at differing distances and elevations from the subject site. Grid Reference co-ordinates and elevations were taken with a GPS Coordinate System ETR589 Geodetic.

These points were selected based on the following:

- Site investigation to establish those locations where there was likely to be significant views (e.g. exposed and elevated ridges);
- Site investigation to establish those locations where there was likely to be a significant number of visual receptors (e.g. towns, tourist routes);

- Ensuring that all landscape character areas within the visual envelope of the site were covered to give representative potential visual effect;
- Study of the topographical data to ascertain areas likely to have most extensive views given scenarios such as no vegetation cover.

6.3.5.1 Views: North

To the north, across the R357 Road is a flat and open wide expanse of uninterrupted pasture and peatland known as Falsk that merges into formal blocks of commercial forestry. The R357 Road is aligned with thick hedgerows with significant tree groupings for the section adjacent to the site that ensure views of the floor of the application site and any buildings are obscured to areas further north. The most significant road is the R437 towards Ferbane that is a relatively narrow and unmarked road.

There are no properties located to the north of the application site, with the exception of a single farmstead near the road junction at the north-west corner of the site (VRP 06). The open expanse to the north has no properties or buildings until the Gallen townland or sparsely dispersed aside the Grand Canal, which is approximately 3km.

The settlement pattern becomes denser towards Ferbane, but the application site is obscured from these distant areas by intervening ridges and vegetation. The Grand Canal Way is on occasional elevated sections above the surrounding peatlands ensuring that open panoramic views are afforded. Although the application site is over 2km from the nearest part of the Canal, it is currently obscured from view by vegetation.

VRP 03	R437 Road, (Railway Crossing) Nr Falsk		
GPS Reference	N53 °13.532' H007 °49.266'	Elevation	+ 46m
Proximity to Application Site	1.8km	Photograph Date	14.05.2009
Comment on Visibility of Existing Site	Located just off the Falsk peatland area, this viewpoint represents the typical view afforded from the (slightly elevated) R437 Road as it traverses the flat landscape between Ferbane to the north to a junction with the R357 to the south. The application site is obscured from view by intervening scrub vegetation / conifer plantations.		

VRP 04		R437 Road, Falsk	
GPS Reference	N53 °14.359' H007 °49.173'	Elevation	+ 47m
Proximity to Application Site	2.5km	Photograph Date	14.05.2009
Comment on Visibility of Existing Site	To the north of the application site, the landscape is very flat and open with uninterrupted views of approximately 2km towards the vegetation and hedgerows aligning and in the vicinity of the R357 Road on the distant skyline. The application site is currently obscured by this vegetation. This is an indicative reference point from this large landscape area though there is little in the way of "visual receptors" in this landscape bar those who are working on the peatlands.		

VRP 06		R357 Road Junction adjacent to NW corner of Site; (Designated Scenic Amenity Route)	
GPS Reference	N 53 °13.664' H007 °47.900'	Elevation	+49m
Proximity to Application Site	10m	Photograph Date	26.05.2009
Comment on Visibility of Existing Site	The junction abuts the north-west corner of the application site where a small unnamed lane accesses the R357 Road. A mature woodland block serves to obscure views of the application site area. Some more ornamental planting is notable within the southern hedgerow on the R357 suggesting a former different land usage on the application site.		

6.3.5.2 Views: West

To the west the landscape is rural pastureland intersected by the R437 and R357 Roads that converge at Lumcloon Cross Roads. The fields and roads are bound by thickset hedgerows subject to varying management regimes but they serve to restrict views across the relatively flat landscape that rises very gradually towards Cloghan Hill (+114m), 4.8km distant.

The settlement pattern is very dispersed with occasional groupings of detached dwellings aligning the local road network. The closest properties on the R357 to the west (before Lumcloon) are set in mature vegetated areas and views towards the application site are

obscured. The landscape is crossed by a series of major power-lines remnant from the former power plant at the application site. There are no views from the village of Cloghan.

VRP 01	R357 Road, Lumcloon; (Designated Scenic Amenity Route)		
GPS Reference	N 53 °13.577' H007 °48.472'	Elevation	+ 46m
Proximity to Application Site	550m	Photograph Date	26.05.2009
Comment on Visibility of Existing Site	Approaching the application site from the west (Cloghan), woodland and mature vegetation on the western site boundary become visible over intervening trimmed hedgerows. Several electricity pylons are evident on the skyline and landscape areas to the south-east. The application site is currently obscured from views by intervening vegetation.		

VRP 05	R357 Road, Lumcloon; (Designated Scenic Amenity Route)		
GPS Reference	N 53 °13.626' H007 °48.104'	Elevation	+50m
Proximity to Application Site	320m	Photograph Date	26.05.2009
Comment on Visibility of Existing Site	Approaching the application site from the west (Cloghan), the existing hedgerow on south of the R357 Road serves to obscure views to the south and east. This VRP is from a field gateway entrance off the road and serves to demonstrate the existing network of hedgerows in the open pastureland to the west of the application site and the extent of woodland on the western site boundary. Electricity pylons are a feature of the landscape character.		

6.3.5.3 Views: South

To the south, the landscape within the nearest kilometre is predominantly pastureland with large to medium sized fields and roads /lanes bound by thickset hedgerows. The small lane that bounds the west of the application site accesses the R437 approximately 600m to the south near Millbrook Bridge and there is a small but dispersed "hamlet" in this area. Views of the existing application site are obscured by vegetation on the application site boundary and within intervening fields.

Beyond this area, the landscape is open flat peatland largely devoid of settlement for up to 3km. The R437 is the only road in this landscape and is very straight for approximately a 3km stretch from Broughal Cross Roads on an alignment almost directly towards the application site.

VRP 02		R437 Road, Lumcloon; (Designated Scenic Amenity Route)	
GPS Reference	N53 °13.286' H007 °48.345'	Elevation	+ 47m
Proximity to Application Site	750m	Photograph Date	26.05.2009
Comment on Visibility of Existing Site	To the south-east of the application site are large open pasture fields bound by thickset hedgerows that serve to obscure views from passing cars on the road (between Kilcormac and Cloghan). At locations where there are gaps (e.g. gates), views are afforded. VRP2 is taken over a section of this hedgerow to give a representative viewpoint from this area. While the area is slightly higher than the application site, views are obscured by intervening field hedgerows and the boundary vegetation on the lane to the west of the site itself.		

6.3.5.4 Views: East

The landscape to the east is very sparsely settled with the majority of residential properties being located in and around the R357 road junction at Lea Beg, 4km distant. The R357 road is the only access public route in the intervening landscape. From Lea Beg the marked walk of Offaly Way crosses the open countryside or runs concurrent with minor roads in a north-south trajectory. The Offaly Way connects some of the Lough Boora Parkland areas located to the east of the application site.

VRP 07		R357 Road, near townland of Rin; (Designated Scenic Amenity Route)	
GPS Reference	N 53 °13.767' H007 °47.067'	Elevation	+49m
Proximity to Application Site	300m	Photograph Date	14.05.2009
Comment on Visibility of Existing Site	Travelling west on the very straight R357, conifer plantations and thick hedgerows obscure the landscape to the south and west for much of the section through the Rin townland. At this viewpoint, views towards the east of the application site open up due to clearings in the woodland. Evidence of the former industrial nature of		

	the application site is visible including remnant railway, sheds and power-lines.
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VRP 08	R357 Road, Gorteen Bridge in townland of Rin; (Designated Scenic Amenity Route)		
GPS Reference	N 53 °13.939' H007 °45.549'	Elevation	+51m
Proximity to Application Site	3.1km	Photograph Date	14.05.2009
Comment on Visibility of Existing Site	This section of the R375 is typical of the nature of some of the more significant roads in this area being very straight, slightly elevated above the peatland landscape and with limited or no hedgerows. Views to the west are open and expansive with intervening hedgerows or conifer woodlands located on skylines and closing off views of the application site.		

VRP 09	The Offaly Way near Leabeg		
GPS Reference	N 53 °14.390 H007 °44.284'	Elevation	+51m
Proximity to Application Site	3.5km	Photograph Date	14.05.2009
Comment on Visibility of Existing Site	In and around Lea Beg to the north-east of the application site are large open pasture fields situated around this section of the Offaly Way (a vehicular cul-de-sac). This section that goes on to connect to the Grand Canal Way is a narrow lane with thick hedgerows that limit visibility beyond the lane itself. Where views are afforded (e.g. gates), they are of large fields but the view is closed off by further hedgerows or conifer woodland. The application site is not visible from this area.		

6.3.6 Landscape Qualities

6.3.6.1 Landscape Value

The existing application site comprises a brownfield site with remnant hard stand areas that has become colonised by grass, weed and occasional scrub. It is a damaged landscape and the core possesses no unique landscape features or ones that would be considered rare or

locally significant. It is fenced off and inaccessible with well wooded or vegetated boundaries that screen the majority of the site and screen it from the R357 road hiding it's degraded and neglected condition. The key landscape features of the application site are the woodland block to the north-west and some of the vegetation aligning the boundary with the R357 road.

In overall terms, the application site carries no landscape designations and has a *low value and quality*.

Beyond the site periphery, this is a remote and sparsely populated landscape that has been subject to a history of large scale peat extraction that has left a significant mark. Subsequent conifer plantations across the peatlands have somewhat angular forms and can be considered incongruous with what would be perceived to be the natural landscape character of this area. The essence of the Bog of Allen landscape itself is one of notable flatness and has a rarity in terms of character but many areas have been affected or damaged to such a degree that restoration is required and suggests an overall rating of *medium value and quality* landscape. In many areas there is no distinct landscape pattern and local landmarks or features are of a very limited nature but the broad landscape scale and character suggest a resilience and adaptability to change.

There are areas that have remained relatively untouched or have been restored (such as the nearby Lough Boora Parklands) and this has redressed some of the historical lands-uses and these areas have a *high value and quality*.

6.3.6.2 Landscape Sensitivity

Landscape sensitivity is based on the ability of the surrounding landscape to accommodate and absorb changes within the confines of the application site and the degree of sensitivity of peripheral area's inherent quality and character.

The Offaly County Development Plan classifies landscape sensitivity across the Bog of Allen area and the application site is located in an area classified as '*low sensitivity*'. This can partially be attributed to the previous land-use on this site but also on account of its relative remoteness and the changes this landscape has experienced in the last 100 years. The existing site is well screened from vantage points to the north and west and the majority of "visual receptors" are those travelling though the area on the R357 Road and who have transient, partial or oblique views of the application site.

The application site's current contribution to the wider landscape quality or value is very limited and it is considered that it has a good ability to accommodate and absorb change without significant detriment to peripheral area's character.

6.4 NATURE AND SCOPE OF THE PROPOSED DEVELOPMENT

6.4.1 Introduction

This section describes the elements of the proposed development that will change the existing landscape setting of the application site and the proposed measures that would be incorporated to provide mitigation against potential effects that may derive from these changes.

It is recognised that project characteristics, and hence sources of effects, will vary through time. The construction and operation phases of such a development are characterized by quite different physical elements and activities. The duration of the effect is also a material consideration, since a lesser effect may be less tolerable if it continues for a significant period.

6.4.2 Construction Period

The construction works is likely to result in the following key effects:-

- Earthworks involving removal of remnant foundations and hard-standings of former power station;
- Widening of existing site entrance off R357 Road and pruning of overgrown vegetation on road verges to facilitate sight-lines;
- Provision of secondary access onto R357 Road, east of main entrance to the application site;
- Provision of Security Hut at main site entrance;
- Provision of new internal access road (6.0m wide) and parking areas (total 16 spaces);
- Regrading works as necessary to create a level surface at 46.80m (proposed finished floor level of all buildings);
- Construction activity and equipment including vehicular movements, cranes and provision of temporary contractors compound;
- Erection of new site boundary security fencing (5.0m high chain-link) along application site boundary (to replace existing post and wire fence as necessary);
- Felling of existing woodland to north-west corner of the site;

- Construction piling maybe necessary in some areas due to the nature of the existing ground;
- Construction of Power Plant and accompanying landscape works.

6.4.3 Operational Period

The operational period of the Power Plant entails the following elements that have potential effects on the landscape character and visual amenity of the surrounding areas:-

- Power Generation Building:- a building covering an area of 8,440 m². This will be comprise a series of buildings with roof apex of 14m for those to the west and north with two blocks of taller buildings with 28m high apex to the centre and south;
- Stacks:- 4 no. 3.2m diameter x 38.0m high by pass stacks and 4 no. 3.2m diameter x 49.0m high from the combined cycle process;
- Administration Building:- 30.0m long x 12.0m wide with roof eaves of 5.0m;
- Warehouse Building:- 30.0m long x 26.0m wide with roof apex of 12.4m;
- Area designated for Above Ground Installation:- 1,182 m²;
- Switch Yard Area: - 9,261 m² containing the existing pylons. Yard will be drained conventionally and include oil and silt inceptor and gravelled edge;
- Air Cool Condenser Areas:- 38.8m x 40.0m with roof parapet of 24.50m;
- Surface water attenuation tank;
- Raw water and fire water tanks;
- Water Treatment Area;
- Gas Receiving and Gas Insulated Switchgear Area;
- Formalising access roads from R357 Road and within site either in concrete or tarmac / asphalt surfacing with concrete kerbing. This will include ensuring that sight-lines onto R357 Road are retained and facilitated;
- Landscape Works (See Section 6.4, Mitigation Measures)

6.5 LANDSCAPE MITIGATION MEASURES

6.5.1 Proposed Landscape Works

The appearance of the development is a major influence on how the site will be perceived by the public so the proposals include for peripheral landscape works to be undertaken from the outset to help to mitigate potential adverse effects.

Landscape work will involve an initial phase that will be undertaken in the planting seasons concurrent to the construction phase. This will include planting and augmenting the boundary hedgerows with native trees and scrub including ash, hawthorn and oak. These works will be predominantly to areas within the application site along the R357 Road and the small lane to the west and will be undertaken with the objective of visually obscuring the working and switch yard areas from views of passing motorists.

Planting works will be based on the proposals outlined on Figure 6.21 indicating outline landscape works for all boundary areas on the application site.

The landscape proposals can be summarised as follows:

- Planting (native species) and augmenting the existing 8-14m wide belt of trees and under-storey scrub along the majority of the R357 Road boundary. Existing vegetation will be retained and overhauled as required. Planting will consist of 'bare-root' transplants, whips, feathered and standard trees which will be able to adapt readily to existing ground conditions. Emphasis will be on native species bar where more substantial and year round screening is deemed necessary. Plants will be 750-900 mm in size and planted at 450 -500 mm centres;
- Mature trees in the existing belt along the R357 Road will be retained with the recommendations given in "BS5837:2005 Guide for trees in relation to construction" be adopted to ensure site and tree safety.
- Gapping up and replanting of hedgerow along the lane to the west of the application site with native trees and shrubs to restore the visual screening;
- The maintenance programme from the outset will ensure presentable, clean and tidy site appearance including clean yard areas, managed hedgerows and woodland areas and replacement of any damaged hard landscape features or plant material;
- The proposed planting will be established through accepted planting techniques using standard landscape specifications and British/ Irish / European Standards for stock /

species / sizes and planting methods as a framework. A landscape contractor (ALCI approved) will be appointed to undertake the initial planting works.

- The management of planted areas will initially be undertaken by an ACLI approved landscape contractor with the developer remaining as client for duration of their contract. Into the longer term the site management team will undertake the necessary maintenance of the landscaped peripheral areas.

6.5.2 Monitoring

Regular monitoring will be undertaken to determine success of planting and ensure it is behaving in the manner anticipated at design stage. If required, elements of the design will be revised to accommodate changes required by actual field experience. An '*External Areas Management Plan*' will be prepared, which will set out maintenance measures and methods to mitigate issues such as plant failure as well as identify, reduce and remedy unforeseen impacts for a period of 20 years from project commencement. This will include replacement of any failed or stressed vegetation or grass material planted as part of the scheme.

6.6 PREDICTED IMPACT ON LANDSCAPE CHARACTER AND VISUAL AMENITY

6.6.1 Introduction

The aim of the assessment for this objection is to quantify the effects of a proposed power plant and to present them without bias. This requires both objective analysis and subjective professional judgement. Accordingly, the terminology used in this section is based on threshold criteria examples in Appendix 9 of the Guidelines for Landscape and Visual Impact Assessment (2nd Edition) by The Landscape Institute and The Institute of Environmental Management and Assessment 2002.

While any assessment must be measured against that of the situation that pertains at present, it is worth noting that the highest elements on the previous power station were the two concrete towers (see Figure 6.4) that stood at 87m, and were 38 meters higher than the chimney stacks that form part of this proposal. Furthermore the massing of the former power plant approximates to nearly four times that of this proposal and had a much larger footprint.

The site is currently in a 'damaged' state set amongst a peripheral rural and remote landscape with minimal topographical variation. The site has had no land use since the

demolition of the previous power station in 2002. The key to this assessment is to determine the significance of the proposed change, if any, from the sites current use to that of a new gas-fired Power Station on the application site and the surrounding landscape.

6.6.2 Landscape and Visual Effects during the Construction Phase

There will be temporary to short-term adverse effects during the construction period. Taller elements involved such as cranes are likely to have localised adverse visual impacts during construction of the Plant.

The most significant adverse effect will derive from the removal of the existing conifer and mixed woodland to north-west corner of the site to facilitate the Above-Ground Installation area. The boundary hedgerow will be retained but views will be afforded into the application site that is currently screened by this woodland block.

The extent of earthworks required is not visually significant given the existing flat nature of the site and the vast majority of the earthworks area is visually obscured by the thick hedgerow along the R357 Road. The objective is to ensure there is a balance between earthworks to ensure off-site disposal of earth is minimised.

6.6.3 Effects on Landscape Character

Landscape Character Effects	
Landscape Character Area	Anticipated Landscape Effects
Application Site	<p>The application site will experience a substantial effect during the initial construction period due to the extent of earthmoving and related activity likely to include cranes, large machinery and contractor's compounds that will have a detrimental effect on the local application site area. While this is considered adverse, the existing site is of a brownfield nature with extensive evidence of former industrial scale land-use and in overall terms, the degree of potential adversity, when measured against the existing '<i>damaged</i>' landscape setting is not significant. .</p> <p>By the time of the operational period, the changes to the application site will continue to be of a substantial nature with the introduction of a significant utilitarian power plant, ancillary buildings and yard areas. All traces of the existing application site will be eradicated with the most adverse effect deriving from the removal of the woodland to the NW corner.</p> <p>The existing site has an untidy and unkempt appearance and the hardstand areas associated with the new plant will constitute an improvement over the current landscape management or use.</p>
Lumcloon	<p>The R357 Road is a relatively quiet road but is promoted as a scenic route and the mass of the power plant will be intermittently visible for a 2.5km stretch of the road. The character of the "road" area and local landscape is affected detrimentally by a series of elements including pylons, transmission towers and a history of industrial scale activity in this area. Consequently, the area has a somewhat bedraggled appearance. The existing site does detract from the landscape character where glimpse views are afforded of unsightly storage / yard areas and associated abandoned sheds.</p> <p>Views are partial or filtered by the existing boundary hedgerows but the removal of part of the woodland to the north-west corner will serve to open up views and demonstrate (at project commencement) the degraded nature of the industrial site. The new power plant will be very evident and its introduction will constitute a moderate adverse effect on the landscape</p>

	<p>character of this part of Lumcloon over the situation that pertains at present. The building is such a scale that its upper parts and chimney stacks will be visible over the boundary hedgerows and across the townland of Lumcloon. While the proposal is a significant introduction, this is an area that has had a history of change and power generation and it is considered well capable of absorbing such a change without significant detriment to its wider character.</p> <p>As the proposal settles into the landscape and the landscape proposals mature, the effects will reduce appreciably but it will continue to constitute a slight adverse effect into the medium and longer term.</p>
The Bog of Allen Landscape	<p>The Bog of Allen comprises a vast area across the midlands notorious for its flatness, openness and scale of its peatlands. The application site comprises a negligible portion of its total of 958 square kilometres and is deemed to be a landscape of low sensitivity in the development plan classification.</p> <p>Despite the flatness of the surrounding landscape, views of the site are largely closed off from public vantage points (chiefly roads) by intervening vegetation and the conifer forestry plantations. Bar those travelling through the area, there are very few people who will be affected by any change on the application site in the Bog of Allen site.</p> <p>The effects of the proposal on the character of the Bog of Allen will be largely negligible as its visual envelope is limited to relatively small area around the plant. Where open or glimpse views are afforded of the chimney stacks, a change in associated land use will be discernible but would only constitute a minor adverse effect in the worst case on landscape character.</p>
Lough Boora Parklands	<p>The Lough Boora parklands comprise a series of parklands that surround the application site with the closest being located 3km to the east.</p> <p>The only parts of the proposal that will be visible will be the upper parts of four stacks that would protrude above the treed skyline. Where panoramic views are afforded in the parklands they are of a very panoramic and broad nature and the stacks would form a very small part of the view. The effects on the landscape character of the parklands will be negligible on account of distance from the proposal.</p>

6.6.4 Effects on Visual Amenity

Visual Reference Points are identified on Figure 6.8 and cross referenced to Figures 6.10 to 6.20.

Any potential atmospheric emissions from the eight chimney stacks will not be visible as plume will be of a transparent nature.

6.6.4.1 Zone of Theoretical Visibility (ZTV)

The physical limits of the proposed Power Plants visual environment – defined as its Zone of Theoretical Visibility (ZTV) – are established using a combination of Digital Terrain Modelling (DTM) software and Computer Aided Design (CAD) software. This involves the following;

- Construction of a three-dimensional digital terrain model (DTM) of the study area compiled using O.S. digital height data at 10m centres based on a 50 m grid up to 10km from the application site;
- Construction of a three-dimensional digital model of the proposed development (including any chimneys or flues) which is inserted into the DTM using based on topographical survey data;
- A Visibility Map is then created combining the digital terrain model and the digital model to determine the area of land within which there is a view of any part of the proposed development. This does not indicate accurately the significance of the impact in the view, but merely provides a statement of the fact of inter-visibility.

The ZTV is a theoretical computer-aided procedure and since its provenance lies purely with contour data, the screening effect of above ground site features such as forestry plantations, built structures, roadside hedges and even small hills (less than 10m high) are not allowed for. See Figure 6.9.

The ZTV exercise demonstrates that the proposed chimney stacks (49m high) will have potential visual effects on significant parts of the local area. It indicates that Ferbane and Cloghan will not be visually affected by the proposals and that significant areas to the north-west are obscured irrespective of vegetation cover. The key reason for this seemingly widespread visual envelope is the nature of the very flat landscape in this part of Offaly which has minimal topographical variation bar occasional ditches or isolated ridges. Given the findings of this procedure, the assessment took into consideration all these areas and summarise these in the following tables. The key finding was that the vast majority of these areas would not have any views of the proposal on account of the extent of vegetation that

obscures longer views either as part of roadside hedgerows or as a collective of a series of field hedgerows or woodlands. Glimpse and partial views of the upper parts of the chimney stacks may be afforded at distant locations but they will be very small elements in any view and would have a negligible effect on the visual amenity. The main block of the power station will have a visual envelope that is largely limited to within 1km of the site.

6.6.4.2 Views: North

While there will be open views of the site from areas to the north, these areas are inaccessible to the public and there is no roads, footpaths or residential properties in this area. Given the exceptionally limited or potential number of visual receptors in this area the effects on visual amenity to the north beyond the R357 Road are considered negligible.

VPR Ref. 3	R437 Road, (Railway Crossing) Nr Falsk.
Visual Amenity Effects	For motorists travelling south on the R437, views are largely obscured by existing hedgerows aligning the road verges. Views open up at this area due to the railway crossing but are closed off again due to intervening woodland to the south-east between this location and the application site. The power plant will be obscured but there will be glimpse and partial views of the 4 no. chimney stacks over the top of the woodland that currently forms the skyline. While this will be a notable element, it would not detract from quality of the existing view.
Summary	Negligible

VPR Ref. 4	R357 Road, Lumcloon; (Designated Scenic Amenity Route).
Visual Amenity Effects	The viewpoint is slightly off the R357 Road and is selected to give an example of a typical view from the very open peatland areas to the north of the application site. There is an element of intervening screening by both conifer forestry and the trees / hedgerows aligning the distant R357 Road. The combination of distance and this vegetation ensure that the main mass of the power plant will be obscured from view though the 4 no. chimneys will protrude into the skyline. Given the open and panoramic nature of the view, the introduction of these elements will not detract from the quality of this existing view.
Summary	Negligible

VPR Ref. 6	R357 Road Junction adjacent to NW corner of Site; (Designated Scenic Amenity Route)
Visual Amenity Effects	<p>Travelling east on the existing R357, there is no visual evidence to passing motorists of the damaged nature of the existing application site or its former industrial scale land-use due to the extent of vegetation alongside the road and the small lane to the south (that abuts the west of the site). The removal of this woodland block will have a moderate adverse effect on the visual amenity of this area as it will open up views of the proposed power plant. As such the area will become visually dominated by the power plant.</p> <p>The proposals include for retention of large mature trees (within 10m strip from boundary) along the boundary and planting and augmenting the roadside hedgerows in this area once construction is completed. As this matures, the effects will appreciably reduce into the longer term.</p>
Summary	Moderate Adverse

6.6.4.3 Views: West

The main visual receptors to the west will be those who are travelling on the R357 Road in an easterly direction. The majority of the area comprises open farmland bound by hedgerows that serve to dissolve and filter views over distance.

VPR Ref. 1	R357 Road, Lumcloon; (Designated Scenic Amenity Route)
Visual Amenity Effects	<p>Travelling east on the R357 Road, the current view is partially obscured by intervening roadside and field hedgerows which contain some significant trees. Views to the north are closed off by the roadside hedgerow. The proposal will entail removal of vegetation on the site boundary towards this vantage point opening up views of the proposed power plant and its chimney stacks. The existing view is relatively panoramic and the site represents only a small portion of the view. The boundary planting post construction will assist in blending in the lower parts of the power plant into the view and in the longer term only the upper parts of the chimney stacks will be visible.</p>
Summary	Minor Adverse

VPR Ref. 5	R357 Road, Lumcloon; (Designated Scenic Amenity Route)
Visual Amenity Effects	Views to the western part of the application site from this viewpoint are currently closed off. The proposal will entail removal of the woodland block to the north-west corner opening up views of the middle and upper parts of the proposed power plant. The proposal includes for replanting and augmenting this boundary but it will change the context of the view from one of a rural nature (albeit with extensive power-lines) to one dominated by industrial scale building. As the planting on the site boundary matures, the effects will lessen appreciably.
Summary	Moderate Adverse reducing to Minor Adverse in medium term.

6.6.4.4 Views: South

To the south, the landscape comprises open fields bound by significant hedgerows that filter views or cumulatively obscure views of the application site from the main residential area around Millbrook Bridge and public roads.

VPR Ref. 2	R437 Road, Lumcloon; (Designated Scenic Amenity Route)
Visual Amenity Effects	The R437 is aligned with thickset hedgerows that serve to visually obscure field areas aside bar at gateways or weak sections of the hedge where any view towards the application site would be of an oblique nature. The existing field hedgerows and those on the lane (to the west of the site) ensure that views of the majority of the power plant are obscured though the chimney stacks will protrude into the skyline. The skyline is already interrupted by a series of power-lines and this proposal will constitute additional interruption and introduce an industrial element to the character of the view.
Summary	Minor Adverse

6.6.4.5 Views: East

The landscape to the east is very sparsely settled with significant tracts of conifer forest plantation immediately to the east of the application site limiting views towards the application site. The main visual receptors to the west will be those who are travelling on the R357 Road in a westerly direction.

VPR Ref. 7	R357 Road, near townland of Rin; (Designated Scenic Amenity Route)
Visual Amenity Effects	Travelling from the west towards the application site, the views are largely obscured by woodland and roadside hedgerows. Around the railway crossing, views open up through gaps in the trees of the eastern part of the site. Existing pylons are evident to the west. The power plant will be a very evident introduction into this area and will become the dominant element in the view. Mitigation planting will serve to obscure the lower (yard) areas of the site and as this matures, the middle sections of building elevations will become obscured or filtered. The upper parts of the building and chimney stacks will remain visible into the longer term and will change the context of the view from one of a perceived rural landscape to that of an industrial nature.
Summary	Moderate Adverse

VPR Ref. 8	R357 Road, Gorteen Bridge in townland of Rin; (Designated Scenic Amenity Route)
Visual Amenity Effects	Travelling west on the R357, the landscape comprises a very broad open rural landscape with hedgerows and woodland culminating into a blurred distant skyline. For much of this section of the road, it is raised above the peatland and is not bound by hedgerows thus allowing open panoramic views. The main body of the power plant will be obscured from this view but the chimney stacks will protrude into the distant skyline. Given the open and panoramic nature of the view, the introduction of these elements will not detract from the quality of this existing view.
Summary	Negligible

VPR Ref. 9	The Offaly Way near Leabeg
Visual Amenity Effects	The extent of hedgerows bounding fields and the road verges in this area ensure that the area is visually very enclosed. Very occasional (and non-public) views may be afforded from open field areas nearby but they would only be of the upper parts of the chimney stacks and this would not detract from the quality of the existing views from this part of the study area.
Summary	Negligible

VPR Ref. 10	The Offaly Way, Behanmuck, nr. Lough Boora Parklands; Designated Area of High Amenity
Visual Amenity Effects	Existing woodland blocks to the west of this waymarked route obscure views across the flat Lough Boora landscape. Where distant views are afforded, they are panoramic but are ultimately closed off by the hedgerows and tree groups on the skyline. The proposed power plant will be obscured from this vantage point.
Summary	Negligible

VPR Ref. 11	Bird Hide, The Offaly Way, Lough Boora Parklands; Designated Area of High Amenity
Visual Amenity Effects	This is part of the Lough Boora Parklands with an open view afforded to the west across a Lakeland and marsh setting towards a distant skyline that is a culmination of wooded groups and forestry plantations. The main body of the power plant will be obscured from this view but the chimney stacks will protrude into the distant skyline. Given the open and panoramic nature of the view, the introduction of these elements will not detract from the quality of this existing view.
Summary	Negligible

VPR Ref. 12	Lough Boora Parklands; Designated Area of High Amenity
Visual Amenity Effects	Within the Lough Boora Parklands, this is an elevated vantage point situated on a former industrial railway line that offers expansive panoramic views to the west over the peatlands and woodland areas that are on the skyline. The main body of the power plant will be obscured from this view but the chimney stacks will protrude into the distant skyline. Given the open and panoramic nature of the view, the introduction of these elements will not detract from the quality of this existing view.
Summary	Negligible

VPR Ref. 13	Top of Stone Pyramid, Lough Boora Parklands; Designated Area of High Amenity
Visual Amenity Effects	This viewpoint is representative of the highest accessible point in the Lough Boora Parkland albeit it does involve an element of climbing. From the summit of the sculpture, it affords the most open vantage point possible from this part of the park. A very panoramic view of the flat landscape to the west is afforded which has a wooded characteristic made up of smaller trees and scrub that merge visually into the conifer plantations beyond. The main body of the power plant will be obscured from this view but the chimney stacks will protrude into the distant skyline. Given the open and panoramic nature of the view, the introduction of these elements will not detract from the quality of this existing view.
Summary	Negligible

6.6.5 Do Nothing Effects

It is likely that the site will continue to be a brownfield site for the foreseeable future. There is not likely to be a proposal to restore this land to agricultural use or alternative land use given its remoteness and the cost of a restorative scheme.

6.7 SUMMARY OF LVIA ASSESSMENT

The existing application site comprises a brownfield site that presents a damaged landscape with a core that possesses no unique landscape features. It is fenced off and inaccessible with well wooded or vegetated boundaries that screen the majority of the site and screen it from neighbouring areas. The key landscape features of the application site are the woodland block to the north-west and some of the vegetation aligning the boundary with the R357 road. It carries no landscape designations and has a *low value and quality*.

Beyond the site periphery, is a remote and sparsely populated landscape that has been subject to a history of large scale industrial for peat extraction. Subsequent conifer plantations across the peatlands have somewhat angular forms and can be considered incongruous with what would be perceived to be the natural landscape character of this area. The essence of the Bog of Allen landscape itself is one of notable flatness and it has a rarity in terms of character but many areas have been affected or damaged to such a degree that restoration is required and suggests an overall rating of *medium value and quality* landscape.

The Offaly County Development Plan classifies landscape sensitivity across the Bog of Allen area and the application site is located in an area classified as *'low sensitivity'*.

There are areas that have remained untouched or have been restored (such as the nearby Lough Boora Parklands) and this has redressed some of the historical lands-use disturbance and these areas have a *high value and quality*.

The proposal involves construction and operation of a gas fired power plant. This will be comprise a main core building with roof apex of 14m and two blocks of taller buildings with 28m high apex. Four 38m and four 49m chimney stacks are included in the proposal. Ancillary development includes administration, buildings tanks, switch yards, warehouses and formalising accesses onto the R357 road.

There will be temporary to short-term adverse effects during the construction period. Taller elements involved such as cranes are likely to have localised adverse visual impacts during construction of the Plant. The most significant adverse effect will derive from the removal of the existing conifer and mixed woodland to north-west corner of the site to facilitate the Above-Ground Installation area. The boundary hedgerow will be retained but views will be afforded into the application site that is currently screened by this woodland block.

The new power plant will be very evident and its introduction will constitute a moderate adverse effect on the landscape character of this part of Lumcloon over the situation that pertains at present. The building is such a scale that its upper parts and chimney stacks will be visible over the boundary hedgerows and across the townland of Lumcloon. The effects of the proposal on the character of the Bog of Allen (including the Lough Borra Parklands) will be largely negligible. The main body of the power plant will be obscured from these areas but the chimney stacks will protrude into the distant skyline. Where open/ glimpse views are afforded, the introduction of these elements will suggest a change in associated land use but will not detract from the quality of this existing view or landscape character. The main visual receptors will be those who are travelling on the R357 Road and who will be passing the application site and have oblique views.

While the proposal is a significant introduction, this is an area that has had a history of major landscape and land-use change and it is considered well capable of absorbing this proposal without significant detriment to its wider character and visual amenity.