

Inspector's Report ABP 302597-18

Development Location	Refurbishment of existing Cloon to Lanesborough 110kV overhead line. Ballyleague. Co. Roscommon.
Planning Authority	Roscommon Co Council.
Planning Authority Reg. Ref.	18/320.
Applicant(s)	Eirgrid plc.
Type of Application Planning Authority Decision	Permission. To Grant Permission.
Type of Appeal	Third Party.
Appellant(s)	Michael Murray
Observer(s)	None.
Date of Site Inspection	December 20 th , 2018.
Inspector	Breda Gannon.

1.0 Site Location and Description

- 1.1. The proposal is part of a larger scheme to refurbish the existing single circuit 110kV overhead electricity line extending from Cloon substation south of Tuam in Co. Galway, to the existing substation on the outskirts of Lanesborough. Co Longford. The line extends over three counties (Galway, Roscommon and Longford) and is approximately 65km in extent. The existing layout of the circuit has a total of 365 no. structures comprising 340 no. Intermediate Wooden Polesets (IMP) and 25 no. lattice steel angle masts (AM).
- 1.2. Within the administrative boundary of Co Roscommon, the refurbishment of the transmission line will take place between structure IMP221 in the townland of Aghagower, south east of Creggs village (Co. Galway) and structure IMP364 in the townland of Ballyleague. Co Roscommon. This section of the line extends to c. 27km and supports 144 no. structures including angle masts and pole sets.
- 1.3. The overhead line travels to the south of Creggs village and parallel with the R362. It changes direction at AM240 and runs northeast and to the south of Caslecoote village. As it crosses the national secondary road (N60) to the northwest of Roscommon town it changes direction at AM280 and runs east, travelling to the north of the town. The overhead line continues its passage, running east and roughly parallel with the N63, until it reaches the substation in Lanesborough.
- 1.4. The electricity line travels across undulating countryside which is predominantly in agricultural use, with isolated pockets of conifer plantations and bogland. With the exception of the towns/villages the settlement pattern consists of individual rural houses and farm holdings.

2.0 Proposed Development

The proposed refurbishment would involve the replacement of a large proportion of existing support structures. The works to the wooden polesets would include replacement of the pole, crossarms, insulators, fittings etc. The works to the angle masts, would involve upgrading of structural foundations and shear blocks, painting of masts, replacement of fittings and the fitting of duplicate insulators and other fittings. One mast will be replaced (AM 286).

Of the 144 no. support structures along the section of the line that crosses Co. Roscommon, the majority are Intermediate Wooden Polesets (135 no.), with 8 no Angle Masts, where the route changes direction. A schedule of the works proposed at each structure is provided in Table 4.1 of the Planning and Environmental Considerations Report (PECR).

- 2.1. No additional structures are proposed along the existing circuit. Any replacement structures will be constructed at, or, immediately adjacent to the existing structures they will replace and will be of generally similar height and appearance.
- 2.2. The development would also involve associated site development works to gain access to the existing structures, including the development of tracks where none exist, clearance of vegetation, disassembly and reassembly of stone walls and gate posts and removal/reinstatement of existing fencing. It also includes all other associated and ancillary site development works including the installation of temporary silt traps, silt fences, and clear span bridges over water courses not already bridged.
- 2.3. Access routes to each structure have been identified and agreed with landowners. The routes are identified on Dwg No's 10269-5023 to 10269-5039. A Construction Methodology is provided in Appendix B of Volume 2.
- 2.4. The application documentation is arranged in a number of folders as follows;
 - Volume 1 (a) Statutory and Other Particulars (b) Drawings.
 - Volume 2 Planning and Environmental Considerations Report. Section 3 contains a Natura Impact Statement.

3.0 Planning Authority Decision

3.1. Decision

The planning authority decided to grant permission for the development subject to 7 no. conditions which are summarised as follows:-

Condition No 1 – Development shall be carried out and completed in accordance with the plans and particulars lodged with the application.

Condition No 2 – A Construction Management Plan shall be prepared by a suitably qualified ecologist and shall have regard to the mitigation measures set out in the Natura Impact Statement. All site investigation and construction works shall be monitored by the ecologist and carried out in accordance with the agreed Construction Management Plan and mitigation measures specified in the Natura Impact Statement.

Condition No 3 – Requires that details of method statements for works which may impact on fisheries be submitted to Inland Fisheries Ireland, prior to the commencement of development.

Condition No 4 – Archaeological monitoring.

Condition No 5 – Traffic Management Plan to be submitted and agreed with the planning authority prior to the commencement of development.

Condition No 6 – All site access locations shall be reinstated to their original condition on completion of the project.

Condition No 7 – Requires that pre and post development surveys be undertaken at all site access locations off the public road network and that any damage caused to the road pavement at the access locations shall be repaired at developers expense.

3.2. Planning Authority Reports

3.2.1. Planning Reports

The **Planning Officer's** report of 16/8/18 considers that the proposal is acceptable in principle having regard to the recently published 'Ireland's Grid Development Strategy', which seeks to optimise the use of existing infrastructure and reduce the need for new infrastructure, and, the provisions of Policy 4.57 of the development plan which seeks to promote the maintenance and upgrade of electricity infrastructure throughout the county. The report which provides an assessment of the proposal under a number of different headings concludes that the proposed development is acceptable.

3.2.2. Other Technical Reports

The **Environment Section** in their report of 7/8/18 raised no objection to the development, subject to conditions.

3.3. Prescribed Bodies

- 3.3.1. The planning authority circulated details of the application to a number of prescribed bodies including the Department of Arts, Heritage and the Gaeltacht, An Taisce, the Irish Aviation Authority, the Department of Agriculture, Food and the Marine, Iarnrod Eireann and Transport Infrastructure Ireland. Response were received from Transport Infrastructure Ireland and the Irish Aviation Authority, who stated that they had no observations to make on the proposed development.
- 3.3.2. Details of the application were also referred to Galway Co Council and Longford Co.Council. There are no details of any responses on the file.

3.4. Third Party Observations

Mr Michael Murray raised similar issues to those raised in the appeal.

4.0 **Planning History**

Reg Ref No 18/896 - Planning permission granted by Galway Co. Council for the refurbishment of the section of the Cloon to Lanesborough 110kV line within its administrative boundary subject to conditions.

Reg Ref No 18/193 – Planning permission granted by Longford Co. Council for the refurbishment of the section of the transmission line within its administrative boundary subject to conditions.

5.0 Policy Context

5.1. There is a plethora of national policy which recognises the importance of the development and renewal of our electricity infrastructure to meet both economic and social needs and security of supply. The most recent includes the Government Policy Statement on the *Strategic Importance of Transmission and Other Energy Infrastructure* (2012) which emphasises the importance of a guaranteed energy supply at competitive costs to allow Ireland to attract and retain Foreign Direct Investment, sustain Irish enterprise and provide a secure supply for consumers. In the Government White Paper titled '*Irelands Transition to a Low Carbon Energy*

Future 2015-2030' (December 2015), security of supply is identified as a core objective in sustaining the functioning of the economy.

- 5.2. **Irelands Grid Development Strategy** was published in 2017 and is a long-term strategy to develop the electricity grid. It identifies new projects and highlights the advantages of upgrading existing infrastructure, including lower costs and potentially less impact on the environment and local communities.
- 5.3. Under the provisions of Strategy Statement 3 the aim is to maximise the use of the existing electricity grid and minimise the need for new infrastructure. This will be achieved by increasing the capacity of existing infrastructure, or by using new technologies.

5.4. Development Plan

The operative development plan is the **Roscommon County Development Plan 2014-2020.** It recognises that the availability of clean and reliable energy is an essential requirement for the sustainable economic development of the county. Under Section 4.6.6 the transmission network is identified as the backbone of the power supply and that adequate capacity is critical to support development. It is acknowledged that the entire 110 kV network requires uprating to ensure that the assets are being utilised to their maximum level.

Policy 4.57 – Promote the maintenance and upgrade of electricity infrastructure throughout the county.

Policy 4.59 – Facilitate the sustainable infrastructural development of energy generation and transmission networks, to ensure the security of energy supply and provide for future needs whilst also ensuring the preservation of scenic or otherwise significant landscapes from the visual intrusion of large scale energy infrastructure.

5.5. Natural Heritage Designations

Details of natural heritage designations are provided in the Natura Impact Statement which supports the application and will be considered in more detail in the assessment section of this report.

6.0 The Appeal

6.1. Grounds of Appeal

The appellant raised concerns regarding the proximity of a mast/line to his house. He states that the line must be relocated or placed underground to safeguard the health and safety of the householder.

6.2. Applicant Response

The First Party rebuttal states that during landowner engagement, Mr Murray was consulted and the scope of the project was identified. Mr Murray made no request for the realignment or undergrounding of the overhead line at that time. The closest structure to Mr Murray's property is AM280 and access to the mast is via a neighbour's land. The nearest outer conductor of the mast is c.12m from Mr Murray's residence and c.15.4 when measured from the centre line.

The overhead line is located in an overgrown area and is screened from the house by intervening trees. The existing line has been constructed in an area which has been subject to ribbon development and moving the line would be difficult given the number of other dwellings on the road.

No additional structures and no alteration to the nature, extent, alignment, character or voltage of the existing electricity infrastructure are proposed as part of the planning application. Therefore, the alterations as requested by Mr Murray on the basis of health and safety are not necessary.

An information leaflet dealing with EMF as published by EirGrid is included in Appendix 1. This leaflet is based on stringent safety recommendations as made by national and international agencies independently of any grid operator, including the International Commission for Non-Ionizing Radiation Protection (ICNIRP). ICNIRP has investigated the safety of EMF's for decades and provides guidance on safe levels of exposure. The HSE recommends that ICNIRP guidelines are followed to protect the health of the public.

The leaflet (diagram on Page 5) shows the level of EMF's measured near power lines at various distances. The ICNIRP basic restrictions for exposure to Electric Fields of 9,000 volts per meter and to Magnetic Fields of 360 microtesla are also shown.

For a 110kV line, Electric Fields are produced at 1500 volts per meter and Magnetic Fields are produced at 3 microtesla respectively under the line. These levels are considerably less than the ICNIRP basic restrictions outlined above. Levels of EMF's near electricity infrastructure drops off considerably with distance from the line. For a 110kV line, Electricity Fields are produced at 70 volts per meter and Magnetic Fields are produced at 0.45 microtesla respectively at 25m from the power line, which are considerably less than the ICNIRP basic restrictions outlined above.

Mr Murray's residence is c 15.4m from the centreline of the existing power line and both the Electric Fields and the Magnetic Fields produced are at levels which are considerably less than the ICNIRP basic restrictions. There are, therefore, no health and safety issues associated with the proposed powerline at this location. There is, therefore, no requirement to move the overhead line or place it underground at this location.

6.3. Planning Authority Response

No response to the grounds of appeal were submitted by the planning authority.

7.0 Assessment

The proposed development is assessed below under the following headings;

- EIA.
- Principle of the development.
- Health & Safety.

- Environmental Evaluation.
- Appropriate Assessment.

7.1. Environmental Impact Assessment

The proposal is for the refurbishment of an existing 110kV electricity line and it does not fall within a class of development requiring EIA, namely Class 20 of Part 1 and Class 3(b) of Part 2 of Schedule 5 of the Planning and Development Regulations 2001, as amended.

Class 20 of Part 1 of Schedule 5

Construction of overhead power lines with a voltage of 220 kilovolts or more and a length of more than 15 kilometers.

Class 3 (b) of Part 2

Industrial installations for carrying gas, steam and hot water with a potential heat output of 300 megawatts or more, or transmission of electrical energy by overhead cables not included in Part 1 of this Schedule, where the voltage would be 200 kilovolts or more.

The Board will note that all of the works involved relate to an existing overhead power line of 110kV and that the legislative requirements in respect of overhead power lines under Schedule 5 is for lines with a voltage of 200 or 220 kV. There will be no changes/extension to the existing overhead line which would trigger the requirement for EIA under Class 22 of Part 1 and Class 13 of Part 2 of Schedule 5. There is, therefore, no requirement for mandatory EIA in this case.

The proposed refurbishment works will not alter the nature, extent, alignment, location or voltage of the line. Line uprate works such as the proposed development would normally be considered to be exempted development under section 4(1)(g) of the Planning and Development Act 2000, as amended i.e. works carried out by a statutory undertaker for the purpose of renewing, altering and removing overhead lines and other apparatus, including where necessary the excavation of land for that purpose. However, the requirement for a Stage 2 Appropriate Assessment removes the exemption status of the project (section 4(4) of the Planning and Development Act 2000, as amended). The requirement for Stage 1 Appropriate Assessment was

triggered on the basis that it could not be concluded that potential likely significant on Camderry Bog SAC in Co. Galway could not be ruled out.

Within the administrative boundary of Co. Roscommon, there are structures associated with the overhead line located with European sites. Having regard to the nature and scale of the proposed development, it is considered that the issues arising from the proximity to European Sites can be adequately dealt with under the Habitats Directive (Appropriate Assessment), as there is no likelihood of other significant effects on the environment. The need for environmental impact assessment can, therefore, be excluded at preliminary examination.

Principle of the development

EirGrid has identified the need for the proposed refurbishment of the existing 110 kV line to ensure that it can operate more efficiently. The majority of the line was constructed in 1957 with a later section constructed in 1995. The age of the existing infrastructure and an increasing number of technical issues has resulted in the line being de-rated. The electrical carrying capacity has, therefore, been reduced which impacts on the operation of the transmission system and security of supply.

Various assessments carried out on the line have established that the issues (conductor sag, pole rot and foundation reinforcement) can be addressed by refurbishment works, eliminating the need for new infrastructure and enabling the line to operate to its design standard and at a higher carrying capacity. This is in line with EirGrid's policy and local planning policy which seek the upgrade of existing transmission infrastructure, where technically possible, and to minimise the need for new infrastructure.

I accept that the need for the development has been established and that the principle of the development is acceptable.

7.2. Health & Safety

The appellant resides close to AM280, where the overhead line crosses the N60 to the northwest of Roscommon town. The house is located to the west of the mast site and is screened by intervening vegetation. It is proposed to retain the mast as part of the refurbishment works and to carry out repair works to the foundations, fit insulators and paint the structure. There will be no material alteration to the structure, which according to the appellant has been in existence since the 1970's.

ABP 302597-18

Concerns regarding the impacts of electric and magnetic fields on human health associated with overhead electricity lines are not uncommon. Significant research has been carried out and has consistently found that exposure to electromagnetic fields does not present a health risk if the exposure remains below that recommended by the International Commission on Non-Ionizing Radiation Protection (ICNIRP). The electricity network is designed to operate in accordance with its recommendations.

Whilst I accept that the mast is in very close proximity to appellant's property, the evidence suggests that exposure to levels of EMF's fall well below the ICNIRP basic restrictions for exposure and according the location of the mast does not pose a health or safety risk to the occupant of the house.

7.3. Environmental Evaluation

Having determined that an EIAR is not required, the applicant provided an environmental evaluation of the proposed development, which is contained in the Planning and Environmental Considerations Report (PECR). It considers the proposal under the various environmental topics typically considered in an EIAR. As the proposal involves the refurbishment of an existing line, with no new additional structures, it was possible to scope out some of the topics where it was concluded that there was no likelihood of significant effects. The focus in the PECR is, therefore, on those topics that require further evaluation including Biodiversity, Soils, Surface Water, Roads & Traffic, Cultural Heritage and Landscape & Visual.

7.3.1. Biodiversity

Table 6-4 of the PECR provides a description of habitats/flora along the route. With the exception of IMP242 and IMP243 which are located with the River Suck Callows SPA and IMP324 and IMP325 which are located within Corbo Bog SAC, the line crosses over predominantly agricultural land (much of which has been improved) and pockets of Conifer plantation and Cutover bog. No rare plants species were recorded. Amber and red listed bird species of conservation concern were noted to be widespread in the locality as were other mammals/fauna protected under the Wildlife Act. While bats species are numerous, it was noted that there are no high potential bat roosts (mature trees, old buildings, bridges) within the potential zone of

influence of the project. The majority of the rivers and streams crossed by the line are of Moderate to Good status.

In terms of impacts, it is the construction stage that poses the greatest potential for habitat loss, habitat damage/disturbance, and disturbance of species and pollution of surface waters. These impacts would arise from the movement of machinery, equipment and personnel across access tracks, movements within works areas excavation for new structures, stockpiling of materials and replacement works. Operational stage impacts would be confined to occasional maintenance checks on the overhead line and the support structures.

The potential impacts on European sites (River Suck Callows SPA and Corbo Bog SAC) are discussed in more detail below under the heading Appropriate Assessment. Ballinturly Turlough SAC & pNHA to the north of Athleague is noted to be hydrologically linked to the proposed works via the River Suck. The potential impacts for indirect effects are assessed to be negligible, based on separation distances (2.4 km south-east of the line) and type of development works.

There will be temporary ground disturbance associated with the works. The habitats crossed by each proposed access track are outlined in Appendix D (Volume 2). The majority of the overhead line traverses agricultural grassland areas. These are areas that have been subject to land management practices and are considered to be of low ecological value. The Conifer plantations crossed by the line are classed as of Local Importance (Lower value). The line also traverses pockets of cutover bog, which includes areas where active peat extraction is occurring as well as degraded bog habitats. Proximate to IMP324, IMP325 and IMP344 there are areas where peat areas have revegetated to a heath or wet grassland and these mosaic habitats, depending on the stage of recolonization/recovery, could be classed as Local Importance (Higher value) to National Importance.

There are also locations where the structures straddle hedgerows, treelines and stone walls, which will be disturbed. In a worst-case scenario, clearance would be required within a 30m radius of the structure. Potential impacts would include the creation of a gap which could have negative impacts on faunal species that use these linear features as commuting/foraging corridors.

The proposed development has the potential to impact on fauna including birds arising from disturbance, displacement, loss of feeding/breeding/resting sites. Disturbance may arise from noise, vibration and human presence and species may be displaced arising from the loss of vegetation.

The works will be temporary in nature and will be confined to any particular location for a relatively short period of time. A range of mitigation measures are proposed to reduce the potential for adverse impacts during construction (Section 6.5). As noted the majority of the works will take place on agricultural land which has been subject to human intervention. In more sensitive areas, additional measures will be employed to ensure these areas are adequately protected. These include careful consideration of the land access routes to each structure having regard to ecological sensitivities and to minimise impacts on habitats. Standard best practice methodologies will be employed to manage excavations, to control silt, to provide/manage the use of clear span bridges and to control pollution during the works. It is intended that a suitably qualified Ecological Clerk of Works will be employed to monitor the works and to assess the effectiveness of the mitigation measures.

No instream works are proposed and accordingly there will be no direct loss of habitats and no barriers to migration will be created. Indirect impacts on aquatic ecology could arise if sediments/pollutants entered water bodies. Most of the bird and mammalian species recorded in the area are widespread, which combined with the availability of a wide range of similar habitat in the locality and the temporary nature of the works mitigates against the potential for significant impacts on fauna and birds in the area. The works will take place during spring/summer months and outside the main winter bird season, which will reduce the potential for negative impacts on wintering bird species. Having regard to the long-term existence of the line, the potential for bird collisions is assessed as negligible to low. Whilst no bird collisions have been recorded across the River Suck Callows between IMP242and IMP243, the installation of bird flight diverters is proposed as a precautionary measure and to comply with the recommendations of the Department of Culture, Heritage and the Gaeltacht.

In terms of cumulative effects, ongoing peat harvesting, agriculture and forestry activity are considered. There will be no loss of peat habitat arising from the

development and no cumulative impacts of habitat loss when considered with peat harvesting. Each of the activities has the potential to result in polluting effects on watercourses. Having regard to the stringent pollution control measures that will be implemented as part of the project, it is not considered that the proposed works would contribute to combined effects which would impact on aquatic ecology.

Having regard to the nature of the terrain traversed by the overhead line, which is predominantly managed farmland, the limited extent and duration of the works proposed, the measures proposed to mitigate potential impacts and to protect sensitive sites, I accept that the proposed refurbishment works is unlikely to result in any significant adverse impacts on biodiversity in the area.

7.3.2. Soils

The receiving environment is described in Section 7 of the PECR. The overhead line crosses a landscape with a wide variety of soil types (Figure 7-2) including peat. The transmission line and the surrounding area is underlain by a Regionally Important Aquifer -Karstified with conduit flow (Rkc). In terms of groundwater vulnerability, the line is located predominantly in areas of Low to Moderate Vulnerability. Many karst features have been identified in the area (Fig 7-3C & Fig 7-3D), but none within 50m of the transmission line.

The potential impacts on soil relate to the construction phase only. The activities which will be temporary have the potential to result in soil compression, soil erosion, soil displacement and soil instability from access route construction, the movement of vehicles, equipment and personnel along access tracks and at a number of structure locations where excavation is required.

A range of measures are proposed in the PECR to mitigate potential impacts on soils both during access to the work sites and during the excavation of soils associated with the replacement of support structures, repair of foundations etc. To minimise the impacts associated with access, a number of different types of tracks are proposed including the use of existing stone tracks, new temporary stone tracks over geotextile, temporary bog mats or access across lands with no works using quad vehicles. The type of track used to access structure locations will depend on ground conditions and the sensitivity of the area. Each track is proposed as the best available option to access the structures, whilst causing the least impact on the surrounding environment. It is proposed to strictly adhere to the location and type of access track proposed for each individual structure as detailed in the Construction Methodology (Appendix B) and shown on Drawing No's 10269-5023 to 10269-50039.

The works areas associated with the support structures will also be carefully managed as detailed in the PECR to ensure minimal impacts on soil. This will include the placement of bog mats, or stone over geotextile working platforms completely around the existing structure to accommodate the tracked excavators and to prevent ground damage. Additional bog mats will be placed around the structure to provide for soil storage/ spoils arisings storage and to avoid ground damage. Stockpiled soils will be covered with geomembrane to prevent the generation of dust. The removed soil will be used to backfill excavations with the turve later placed on top. These are standard best practice measures that will be implemented to mitigate impacts on the soil environment.

The risk of peat instability and slope instability is assessed as very low as the peat areas are flat lying nature and have been drained and worked. There will be careful management of any excavated material to further minimise any potential risk. No incidents of peat related slope stability events have occurred along the line.

The nearest karst feature is identified at 50m from AM280. It is recognised in the PECR that replacement of masts could increase the loading on the underlying strata and could modify the karst feature. Site investigations will be carried out where karst features are identified within 50m of the mast base. A number of mitigation measures are available where necessary as detailed in the report such as pilling, capping of the features using geofabrics, mass concrete or spanning reinforced concrete slabs etc.

In terms of cumulative effects, peat harvesting and forestry are considered. There will be no net loss of peatland habitat arising from the refurbishment of the 110kV line and therefore no cumulative impacts of habitat loss with peat harvesting. Any forestry works will be subject to EIA as required by the forestry plan for the area. As noted in the PECR, this would include mitigation measures to avoid, reduce or remedy any impacts on soils that might arise. The mitigation measures proposed as

part of the proposed scheme will ensure that there are no significant adverse impacts or combined effects on the soil environment.

I accept that the proposed development has the potential to impact on soils in the location of the access routes and within the works areas. Having regard to the modest level of construction involved at each location and the temporary and highly localised nature of the works, subject to the mitigation measures proposed, which are designed to minimise impacts on soils generally and sensitive sites in particular, I consider that the potential for impacts on the soil environment are negligible.

7.3.3. Surface Water

The surface water receiving environment is discussed in Section 8 of the PECR. The section of the line traversing Co. Roscommon lies within the Shannon River catchment and the Shannon River Basin District established under the Water Framework Directive. The line oversails a number of surface water features including rivers and streams (Fig 8-2). In addition, a number of the access tracks cross surface water features and drains. Some of these features are traversed by existing bridges and in other locations, the installation of clear span bridges will be necessary to facilitate access to the structure locations.

The only potential for impacts on surface water arising from the development will occur at construction stage. There will be no direct impacts on surface water features as no instream works are proposed. There is potential for indirect impacts associated with vehicle movements along access tracks to the works areas, installation of clear span bridges, accidental spillages of oils, lubricants, concrete etc, and hydrological changes at a local scale. These activities have the potential to result in sediment run-off, pollution release, pooling of water and the release of water to other areas, all of which has the potential to impact on surface water.

Three locations have been identified in Co. Roscommon where the greatest potential for impacts on surface water will arise due to structure replacement in close to surface water features. The structures include IMP242, IMP243 in close proximity to the River Suck Callows SPA and IMP364 located close to the River Shannon. Both IMP242 and IMP364 are also located within flood zones

A suite of mitigation measures are identified in the PECR to mitigation potential impacts on surface water. The measures include scheduling of works outside

periods of heavy rainfall, creation of buffer zones adjacent to streams/river where works are proposed in close proximity, management of vehicle movements to ensure movements are limited to the minimum required, silt control measures including the installation of silt traps, silt fences, site management to minimise risk of contamination from spills and leakages (off-site refuelling, storage of chemicals etc), appropriate storage of creosote treated wooden poles etc. Additional measures will be implemented in particularly sensitive areas including the use of bog matting, limiting the extent of access/works areas and the use of low ground pressure machinery. A Water Quality Management Plan will also be implemented during construction and it will form part of the overall CEMP. These are standard and recognised best practice measures which are implemented on construction sites to protect water quality.

As noted above 2 no. wooden polesets scheduled for replacement are located with flood zones. Floodplain flows will run freely between the twin poles of the support structures and will not exacerbate, or, create additional flooding risks. While essential infrastructure such as utility distribution is regarded as development that is highly vulnerable to flooding, the 'at risk' components of the development are located well above ground level.

In terms of cumulative effects on surface water, the PECR considers agriculture, peat harvesting and forestry, each of which has the potential to polluting effects to surrounding watercourses. Arising from the stringent measures proposed as part of the project to control the release of sediments and polluting material to surface water, I accept that the proposed development will not give rise to cumulative impacts, when taken in conjunction with other developments in the area.

While I accept that the development has the potential to impact adversely on the surface water environment, having regard to the limited construction effort, its highly localised nature and the suite of best practice mitigation measures proposed, I consider that the proposed development can be constructed without resulting in significant adverse impacts on water quality.

7.3.4. Roads & Traffic

The works associated with the support structures will take place off-road at existing mast/pole locations. Access to these locations will be via existing and/or temporary

access from the National, Regional and local road network. Refurbishment work generally takes place in sections, spanning between angle masts, with one section completed before the next stage commences. A total of 5 no. site locations are envisaged to run concurrently with a requirement for 3-7 no. construction workers required at each location. The works would generally be of short duration.

The main stages of construction which will have an impact on traffic are associated with the opening up of the access routes from the road network and the delivery of construction equipment, materials (stone fill for temporary access tracks, bog mats), concrete for angle masts foundation replacement, new wooden poles and steel angle mast components. There will also be traffic movement associated with staff and site vehicles. These activities will give rise to increases in traffic on the road network in the vicinity of the works. The data presented on traffic flows on the national secondary roads in the vicinity indicates that with the exception of the N61, the roads are lightly trafficked.

Drawing No 10269-5023-Drawing No 10269-5039 (Appendix B) shows the existing road network and access locations from the public roads to each structure. Details of how each access will be managed will be outlined in the Construction Stage Traffic Management Plan, to be prepared by the works contractor(s). It is envisaged that the traffic movements associated with construction activity will be low and that there is sufficient capacity along the National and Regional Road network to accommodate development traffic associated. The traffic generated by delivery of materials, construction vehicles and equipment and by staff/site vehicles is expected to be light. A peak in materials delivery vehicles will occur during the pouring of concrete at each of the angle mast sites with an estimated maximum of 16 no. delivery trucks required at the majority of the angle mast locations. As already noted the majority of the structures being replaced are wooden polesets (143). There are 7 no. masts on the Co. Roscommon requiring foundation replacement with I no. mast being replaced (No 360).

The measures proposed to mitigate potential impacts on traffic include the use of existing access tracks to structures where they exist. The primary mitigation measure will be the development of a Construction Stage Traffic Management Plan which will be developed by the contractor in consultation with the Roads Authority, Roscommon Co Council, Transport Infrastructure Ireland and the Emergency

Services. It will detail all of the requirements relating to traffic management associated with construction activity to ensure that the development can proceed safely with minimal disruption to road users. Its implementation will minimise the potential for traffic and transport related issues during the construction stage of the development.

In terms of cumulative impacts, forestry is identified as the key development likely to have impacts on roads and traffic, where forestry felling or planting operations run concurrently. However, such activity generates a low level of HGV traffic which combined with the low level of traffic envisaged for the proposed development, is not likely to result in significant in-combination effects.

Having regard to the localised and temporary nature of the construction works, the limited volume of traffic that will be generated, the capacity of the existing road network to accommodate the marginal increase in traffic that will arise and the mitigation measures proposed, I accept that that the proposed development can be implemented without giving rise to significant adverse impacts on roads and traffic in the vicinity of the development.

7.3.5. Cultural Heritage

An appraisal of the archaeological, architectural and cultural heritage of the area is contained in Chapter 10 of the PECR.

Archaeological Heritage – Various sources of information are used to identify features of archaeological significant in the area. The closest National Monument in the Ownership /Guardianship of the State is Roscommon Castle which is located on the outskirts of Roscommon town and c 1.7km from the existing line. A total of 6 no. archaeological monuments (which may be in the Ownership of the Local Authority) are identified in Table 10-1, none of which are closer than 1.7km. There are also clusters of historic monuments (identified in the Register of Historic Monuments) around the 110kV line to the north of Roscommon town and many archaeological monuments (recorded in the Archaeological Survey Database) scattered around the area.

Direct physical impacts on the archaeological resource could arise either from accessing the proposed works areas or groundworks associated with the replacement of polesets and works to angle masts. The PECR comprehensively

Inspector's Report

identifies the structures where potential impacts on the archaeological resource may arise and sets out site-specific mitigation measures. These are summarised in Table 10-10 and include standard best practice procedures such as demarcation of features likely to be impacted, archaeological monitoring of groundworks, use of bog mats to reduce potential damage by construction traffic.

IMP301 is located in the edge of a ringfort (SMR No RO040-006) and IMP 304 is located within the zone of archaeological potential of a ringfort (SMR No. RO040-11) The works associated with the replacement of these polesets has the potential to impact on archaeological deposits associated with these monuments. Similar mitigation measures are proposed for both structures which includes testing of the full extent of the area which may be disturbed during the construction phase. Archaeological monitoring will be conducted throughout the construction phase to ensure that there is no inadvertent damage to the monument and to facilitate full excavation if required.

I accept that the potential exists for direct physical impacts on the archaeological resource, including material not yet identified. Subject to the measures proposed in the PECR, I consider that significant adverse on the archaeological resource can be mitigated. The mitigation measures are standard best practice and include;

- Archaeological monitoring and archaeological testing, with allowance made for full archaeological excavation in the event that archaeological deposits are discovered;
- Demarcation by an archaeologist of monuments or features that could inadvertently be impacted upon by facilitating access.
- The use of bog mats to prevent ground disturbance in sensitive areas; and
- The inclusion of features in the CEMP to highlight their importance and sensitivity to the contractor.

Architectural Heritage – There are 17 no. Protected Structures within 2km of the line in Co. Roscommon (Table 10-7). These are located at varying distances with the closest being Ranelagh House to the north of Roscommon town at 0.07km. A number of entries in the NIAH located within 1km of the line were also identified (Table 10-8). Between structures IMP250 and IMP251, the 110kV line passes close to the boundary of the demesne landscape associated with Glebe, where the house still exists. It also passes close to the demesne associated with Mount Pleasant in the vicinity of structures IMP262 to IMP266.

The main impacts on architectural heritage would arise from proposed access arrangements to the works areas. I note, for example, there is potential for interference associated with the access to IMP229, which is via an avenue and the grounds of Gamehill House. Features such as gate pier, including outbuildings, wrought iron railings etc could be inadvertently damaged. To mitigate potential impacts a suitably qualified architectural heritage specialist will demarcate the features and will remain on site during construction to monitor access.

The existing position of the transmission line and the number of support structures will not alter as a result of the refurbishment works. There is, therefore, no increased level of impact on existing Protected Structures, features identified in the NIAH or Demesne Landscapes arising from the proposed development. Subject to the mitigation measures proposed to safeguard existing architectural features during construction activity, I do not consider that the proposal gives rise to any concerns regarding impacts on the architectural heritage of the area.

7.3.6. Noise

An assessment of the construction noise related impacts is presented in Section 11 of the PECR. The operational noise impact on adjacent receptors will not change between the existing and post-construction scenarios as there will be no change to the line of the route or its voltage. The line is routed mainly through farmland with predominantly single houses adjacent.

It is predicted from the calculated noise levels that receptors who reside greater than 100m from the wooden poleset replacement works and greater than 110m from the angle mast strengthening works will not be impacted by noise levels above the threshold value of 70dB LAeq, I hour¹. However, for receptors who live closer to the works, the threshold value will be exceeded and mitigation measures will be required. The noise levels at the nearest sensitive receptor to the angle mast (AM 286) which is to be replaced has also been calculated. The nearest receptor is 340m

¹ This is the threshold level applied for all sensitive receptors in accordance with weekday construction noise limits derived from the NRA Guidelines.

from the construction site and will not be exposed to noise levels over the threshold value.

I note that while noise is likely to be high during some construction activities, these are likely to be of short duration. Poleset replacement, for example, will typically last 1-2 days and while angle mast foundation works will typically last 3-4 weeks, much of the time is associated the curing process for the concrete foundations. The noisiest activities will be associated with breaking concrete and driving sheet piles and will typically last for 1-2 days. Driving sheet piles will not be required at every site where angle mast foundation works are required and will be limited to where soil conditions are very soft.

Mitigation will be required where works will take place within 100m of sensitive receptors. The aim will be to mitigate noise at source from various items of plant in accordance with standard practice. Prior notice of noisy activities and the estimated duration will be given to local residents. The Construction Environmental Management Plan will include community liaison procedures to be followed in the event of a noise complaint and noise monitoring of construction works in close proximity to sensitive receptors.

In terms of cumulative impacts, peat harvesting and forestry are considered to be the key project that need to be considered. Peat harvesting will occur normally throughout the summer months and uses typical farm machinery. Forestry works will be subject to EIA and mitigation measures will be included to avoid reduce or remedy impacts that may arise.

Having regard to the identified need for the proposed refurbishment works, the temporary nature of the construction activity in any particular location and the mitigation measures proposed, I consider that the proposed development by itself or in conjunction with noise arising in the wider environment is not likely to give rise to significant adverse impacts on the amenities of the area.

7.3.7. Landscape & Visual

The overhead line crosses a number of landscape character units as identified in the Landscape Character Assessment, which is a supporting document to the Roscommon County Development Plan These include;

- LCA12 Athleague and Lower Suck Valley moderate landscape value.
- LCA32 Roscommon Town and Hinterland high value
- LCA30 Oran Undulating Open Farmland moderate value
- LCA5 Slieve Bawn and Feorish Bogland Basin very high value.

There is also a designated scenic route and a designated view in the vicinity of the line. Scenic Route R7 runs along the N63 and to the south of the transmission route. Designated scenic view (View 21) is from the R366 overlooking the River Suck at a distance of 1km from the transmission line.

As noted in the Planning Officer's report the transmission line is a feature in the landscape for many years. No changes are proposed to its alignment and no additional structures are proposed. The refurbishment works will not result in any significant changes to the line or the support structures which would have impact on the character or scenic amenities of the area. All replacement polesets will be positioned adjacent to existing structures and while there will be increases in structure heights in some locations these will generally be minor, with no additional significant adverse effects.

I accept that the proposed development which will not result in any significant material alterations to the alignment, height, voltage of the overhead line will not result in any additional significant impacts on the landscape character or the visual amenities of the area.

7.4. Appropriate Assessment

The Board will note that the refurbishment project extends over 65km and extends from Co. Galway, across Co. Roscommon into Co. Longford. A Natura Impact Statement (NIS) has been submitted which considers the likely or possible significant effects of the entire project on European sites.

Stage 1 Screening identified a total of 11 no. European sites within 2km of the line, (determined as the Zone of Impact). Over its 65km extent the overhead line passes through 3 no. European sites. These include;

- Camderry Bog SAC (Site Code) in Co Galway,
- Corbo Bog SAC (002349) in Co Roscommon, and

 River Suck Callows SPA (Site Code 004097), which extends into Co. Roscommon.

The line also oversails the Grange River which is part of Lough Corrib SAC.

The remaining 7 no. other European sites within 2km of the line (Fig 1 & 2) include;

- Derrinlough (Cloonkeenleananode) Bog SAC (c.23m south of the line).
- Lough Ree SPA (c.310m south of the line).
- Lough Ree SAC (c. 310m south of the line).
- Lough Lurgeen Bog/Glenamaddy Turlough SAC (c.770m north of the line)
- Levally Lough SAC (c. 872m north of the line)
- Curraghlehanagh Bog SAC (c.1.4km south of the line), and
- Shankill West Bog SAC (c. 1.5km south of the line).

Table 3-1 of the NIS provides a description of each of the European sites, their qualifying interests and likely significant effects arising from the proposed development.

<u>Within Co Roscommon</u>, the proposed development crosses 2 No. European Site, Corbo Bog SAC and the River Suck SPA.

Corbo Bog SAC (Site Code 002349) is located 7km west of Lanesborough and to the north of the N63. The site comprises a raised bog that includes areas of high bog and cutover bog. It is of conservation interest for the following habitats;

[7110] Raised Bog (Active)

[7120] Degraded Raised Bog

[7150] Rhynchosporion Vegetation

The site is described as a site of considerable conservation significance as it consists of raised bog, a rare habitat in the EU. Active raised bog is listed as a priority habitat on Annex 1 of the EU Habitats Directive.

Site specific Conservation Objectives have been published for the site which is to 'Restore the favourable conservation status of Active raised bogs in Corbo Bog

SAC'. As the conservation objective for the other two habitats is inherently linked to that of Active Raised bogs, separate conservation objectives have not been set.

There are 2 no. wooden polesets located within the SAC, IMP324 and IMP325. It is proposed to retain these polesets as existing and there will therefore be no direct impacts on the SAC or its qualifying habitats. Works are proposed to replace polesets on either side of the SAC boundary, including IMP323 to the west (c.63m) and IMP326 (c.66m) and IMP327 (c.120m) to the east. Having regard to the nature of the works proposed, their highly localised nature and the measures outlined in earlier sections of the report to manage the works and protect sensitive bog sites, I do not consider that the development will adversely affect the integrity of the European site in view of its qualifying interests.

The River Suck Callows SPA (Site Code 004097) includes the River Suck and the adjacent areas of seasonally-flooded semi natural lowland wet callow grassland. It is an important site for wintering waterfowl and is of conservation interest for the following species;

- Whooper Swan
- Wigeon
- Golden Plover
- Lapwing
- Greenland White-fronted Goose
- Wetland and Waterbirds.

The Conservation Objectives for the site are as follows:

To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for the SPA' and

'To maintain or restore the favourable conservation condition of the wetland habitat at River Suck Callows SPA as a resource for the regularly occurring migratory waterbirds that utilise it'.

There are 2 no. wooden polesets located within the SPA (IMP242 and IMP243), both of which will be replaced as part of the refurbishment project. There is also a poleset close to the boundary of the SPA (IMP241), at c. 30m to the west which is scheduled

for replacement. Each of the support structures is located in agricultural grassland. The new poles will be inserted into the ground immediately adjacent to the poleset to be replaced, which minimises the potential for any additional impacts on the bird species for which the site is designated. It is proposed to install bird flight diverters on the section of the overhead line between IMP242 and IMP243 to further minimise potential impacts.

Having regard to the existence of the existing overhead line in this location, the nature of the works proposed which involves the replacement of similar poles in a similar location, I do not consider that the development will affect the integrity of the Euopean site or its qualifying interests.

The other designated sites which close to the line route in Co. Roscommon include **Lough Ree SPA and SAC**, which lie to the south of the alignment and on the opposite side of the N63.

Lough Ree SPA (Site Code 0040564) lies to the south of the alignment and is of high ornithological importance for both wintering and breeding birds. It is of conservation interest for the following species;

- Little Grebe
- Whooper Swan
- Wigeon
- Teal
- Mallard
- Shoveler
- Tufted Duck
- Common Scoter
- Goldeneye
- Coot
- Golden Plover
- Lapwing

- Common Tern, and
- Wetland and Water birds.

Lough Ree SAC (Site Code 000440) is designated for a wide range of habitats including;

- Natural eutrophic lakes with Magnopotamin or Hydrocharition-type vegetation.
- Semi-natural dry grasslands and scrubland facies on calcareous substratesimportant orchid sites
- Degraded raised bogs still capable of natural regeneration
- Alkaline fens
- Limestone pavements
- Old sessile oak woods with Ilex and Blechnum in the British Isles
- Bog Woodland
- Wetlands and waterbirds

There will be no direct impact on the SPA or the SAC arising from the proposed development, with the nearest refurbishment works to be undertaken c.290 north of the SPA/SAC. The refurbishment works will be undertaken within the breeding season but potential impacts on breeding birds are considered to be insignificant having regard to the location close to the urban environs of Lanesborough/Ballyleague and within an area where existing activities contribute to background noise. The works will be undertaken between April -September and outside the wintering season for wildfowl.

Having regard to the nature of the receiving environment, the type of works proposed, their highly localised nature and the measures proposed to manage the works, I consider that the proposed development either alone, or, in combination with other plans or projects would not be likely to have significant impacts on any European site in view of the sites conservation objectives. I accept the conclusion reached in the report that potential significant impacts on Corbo Bog SAC and the River Suck SPA can be ruled out and that Stage 2 Appropriate Assessment with respect to these two sites is not required. I would point out to the Board that it was concluded by the applicant following the Stage 1 Screening process that potential significant impacts on Camderry Bog SAC could not be ruled out and accordingly this site was brought forward for Stage 2 Appropriate Assessment and a NIS. This site is located in Co. Galway and has been assessed by Galway County Council, who issued a decision to grant permission on 12/11/18 for that part of the development that crosses its administrative boundaries under Reg Ref 18/896.

8.0 Conclusion

- The refurbishment of the existing transmission line is required to ensure the continued operation of the asset and to maintain its reliability and security of supply. The principle of the development is, therefore, acceptable and accords with EirGrid's strategy to optimise the use of existing infrastructure and reduce the need for additional infrastructure.
- The proposed refurbishment works will not materially alter the existing overhead line in terms of its location, alignment, height or voltage. There are no additional health and safety considerations as a result of the works proposed and the overhead line will continue to operate in accordance with ICNIRP recommendations.
- The environmental evaluation conducted as part of the application comprehensively demonstrates that provided best practice methodologies are implemented during construction there will be no significant adverse impacts on environmental media.
- There is no real likelihood of significant effects on Corbo Bog SAC or the River Suck SPA, or any other European site in the vicinity of the development, having regard to their qualifying features.

9.0 Recommendation

Having considered the contents of the planning application, the decision of the planning authority, the provisions of the development plan, the grounds of appeal and the responses thereto, my inspection of the site and my assessment of the planning issues, I recommend that permission be granted for the development for the reasons and considerations set out below.

10.0 Reasons and Considerations

Having regard to;

- (a) national policy with regard to the development of sustainable energy sources, and energy infrastructure including the transmission system,
- (b) Irelands Grid Development Strategy published by Eirgrid in 2017,
- (c) the provision of the Roscommon Co. Development Plan 2014-2020,
- (d) the Planning and Environmental Considerations Report and other application documents, and
- (e) The Natura Impact Statement

it is considered that, subject to compliance with the conditions set out below, the proposed development would not give rise to significant adverse impacts on the environment including the landscape and visual amenities of the area, its architectural and archaeological heritage and its natural heritage, would be acceptable in terms of safety and human health and in terms of traffic safety and convenience of road users and would not seriously injure the amenities of the area. It is considered that the proposed development would not affect the integrity of any European site or its qualifying features and would be in accordance with the provisions of the Roscommon County Development Plan. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

11.0 Conditions

 a) The development shall be carried out and completed in accordance with the plans and particulars lodged with the application except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

b) all environmental mitigation measures set out in the Planning and Environmental Considerations Report shall be implemented in full, except as may otherwise be required in order to comply with the following conditions.

Reason: In the interests of clarity and environmental protection.

2. A suitably qualified and experienced person with expertise in ecology shall prepare a Construction Management Plan (including further survey work and setting out timescale for construction) shall be submitted to, and agreed inwriting with, the planning authority prior to commencement of Development. The plan shall have regard to the mitigation measures set out in the Planning and Environmental Considerations Report. The Ecologist shall monitor all site investigation and construction work near sensitive sites and ensure that all works are carried out in accordance with the agreed Construction Management Plan and the mitigation measures set out in the Planning and Environmental Considerations Report. On completion of the development, a final report setting out all the monitoring, findings and measures so carried out shall be submitted to the planning authority.

Reason: To ensure the protection of the ecological heritage of the area.

- 3. The developer shall facilitate the protection of archaeological materials or features which may exist within the site. In this regard:
 - (a) The developer shall employ a suitably qualified archaeologist to oversee all the required archaeological mitigation strategies,
 - (b) All construction works associated with the development shall be monitored by a suitably qualified archaeologist. The monitoring shall be undertaken in

agreement with the National Monuments Section of the Department of Culture, Heritage and the Gaeltacht.

Should archaeological material be uncovered during the course of monitoring, the archaeologist shall have work on the site stopped pending a decision on how best to deal with the archaeology. The developer shall prepare to be advised by the National Monuments Section of the Department of Culture, Heritage and the Gaeltacht with regard to any necessary mitigation action and should facilitate the archaeologist in recording any material found.

The planning authority and the National Monuments Section of the Department of Culture, Heritage and the Gaeltacht shall be furnished with a report describing the results of the monitoring.

Reason: In order to conserve the archaeological heritage of the site and to secure the preservation and protection of any remains that may exists within the site.

- Prior to commencement of development, the developer shall submit a detailed Traffic Management Plan to the planning authority in advance of any works commencing on site. The Traffic Management Plan shall contain the following details;
 - (a) All proposed site access locations off the road network and the signage proposed at each location in accordance with Chapter 8 of the Traffic Signs Manual 2010.
 - (b) Loading/unloading of construction materials and plant. The proposed source of all construction material shall be specified.
 - (c) Parking locations -parking of all site operatives and construction vehicles shall not be permitted on the national and regional road network.

- (d) The location of site compounds.
- (e) Proposals to phase deliveries to minimise traffic disruption.

Reason: In the interests of traffic safety.

5. The developer shall undertake a survey at all site locations off the public road network in advance of any works taking place and a further inspection when all works have been completed and the access points have been reinstated to their original condition. Any damage caused to the road pavement at access point locations shall be repaired at the developer's expense, to the satisfaction of the planning authority. Existing roadside drainage shall be maintained at all site access locations.

Reason: In the interests of traffic safety.

Breda Gannon Senior Planning Inspector

08th January 2019