



An
Bord
Pleanála

Inspector's Report ABP313724-22

Development

'North Connacht Project' consisting of approximately 59 kilometres of underground cable between the existing Moy substation, near Ballina, Co. Mayo and the existing Tonroe substation, near Ballaghaderreen, Co. Roscommon

Location

Townland of Gorteen (Barony of Tirawley), County Mayo and the townland of Ballyoughter, County Roscommon

Planning Authority

Mayo County Council

Planning Authority Reg. Ref.

Not Applicable

Applicant(s)

Eirgrid

Type of Application

Application under the provisions of S.182A of the Planning and Development Act 2000 as amended.

Planning Authority Decision

Not Applicable

Type of Appeal

Direct Application to the Board

Observer(s)

Department of Agriculture

Irish Water

Mayo County Council

Northern and Western Regional
Assembly

Roscommon County Council

Transport Infrastructure Ireland

Date of Site Inspection

21st November 2022.

Inspector

Paul Caprani

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1.0 Introduction and Background

1.1. ABP313724-22 relates to a planning application made under the provisions of Section 182E of the Planning and Development Act 2000 for a new 110kV underground cable (UGC) circuit linking the existing Moy substation in Ballina, County Mayo and the existing Tonroe substation at Ballaghaderreen, County Roscommon. The underground cable is approximately 59 kilometres in length. The application was lodged with An Bord Pleanála on 3rd June, 2022. A total of six submissions were received all of which were from either the local authorities in which the proposed project is located, and other prescribed bodies. No third party submissions were received in respect of the proposed development. Pre-application consultations were held with An Bord Pleanála under Reg. Ref. ABP309913-21. Three meetings were held on 1st June 2021, 19th October, 2021 and 30th March, 2022. On the basis of the pre-application consultation meetings, An Bord Pleanála determined in its letter dated 13th May 2022, that the proposed development falls within the scope of Section 182A of the Planning and Development Act 2000 and accordingly the proposed development can be classed as Strategic Infrastructure within the meaning of the Act. On foot of this determination, an application was formally lodged with the Board on 3rd June, 2022.

2.0 Proposed Development and the Site Description

2.1. The proposed development (referred to in the documentation as the 'North Connacht, 110kV Project) comprises of approximately 59 kilometres of new 110kV underground cable to be located between the existing Moy substation to the North West of Ballina, County Mayo and the existing Tonroe Substation outside Ballaghaderreen, County Roscommon. The proposal will also involve extensions to the electrical infrastructure at both substations. Approximately, 50 kilometres of the proposed UGC is located in County Mayo with the remaining 9 kilometres located in County Roscommon. The underground cable will incorporate the following:

- Communication links and fibre optic cables between both substations incorporated into the same trench. The specific siting of the trench within the

red line boundary of the application will be subject to post-consent detailed design and consultation with the Local Authorities and with Transport Infrastructure Ireland.

- Approximately every 850 metres along the cable route, it is proposed to incorporate joint bays (c. 6m x 2.5m), communication chambers and link boxes along the alignment. These again will be the subject of post consent detailed design, all within the identified red line boundary.
- Temporary lay-down areas, passing bays and water and utility crossings are also proposed. The works will include five crossings (using horizontal directional drilling) of the River Moy Special Area of Conservation.
- The upgrading of existing access tracks and the provision of 8 new access tracks to identified off-road joint bays proposed.
- The upgrade and extension of the existing Moy 110kV substation to provide for additional electrical equipment and apparatus similar to that which exists within the existing substation. The new apparatus includes:
 - (a) A new 110kV bay; an air insulated shunt reactor comprising three reactors and four current transformers; insulators, instrument transformers, overhead conductors, disconnectors, circuit breakers, surge arrestors and a lighting mast approximately 15 metres in height.
 - (b) All ancillary site development works including site preparation works, site clearance and levelling, the provision of hardstanding and internal access tracks and a temporary construction compound.
 - (c) Underground cabling and earth grid; palisade fencing (approximately 2.6 to 3.5 metres in height) gates, lighting poles and landscaping as required.
- The proposal will also involve the upgrade and extension of the existing Tonroe 110kV substation to provide for additional equipment and apparatus similar to the existing. This will require an extended area of approximately 0.77 hectares to accommodate the following equipment and apparatus.
 - (a) A shunt reactor comprising of three reactors and four current transformers;

- (b) a communication and protection equipment control building (approximately 450 square metres in size and 8 metres in height).
 - (c) associated 110kV electrical equipment including insulators, instrument transformers, overhead conductors, disconnectors, circuit breakers, surge arresters and a lighting mast approximately 15 metres in height). and
 - (d) ancillary site development works including site preparation works, site clearance and levelling, hardstanding, internal access tracks and temporary construction compound together with underground cabling and earth grid, surface water drainage network including attenuation tank; palisade fencing (2.6m-3.5m in height) and gates; lighting poles and landscaping.
- It is also proposed to construct 11 temporary construction compounds of approximately 1 hectare in size located along the alignment of the UGC.
 - All associated and ancillary above and below ground site development works including works comprising or relating to permanent and temporary construction and road works and excavation including horizontal directional drilling and vegetation clearance.

2.2. Description of the Proposed Route

2.3. In terms of the route description (from north-west to south-east), the underground cable (UGC) route commences at the existing 110kV Moy substation in the townland of Ardoughan on the western side of a local road which runs northwards from the N59 to the west of the town of Ballina (See Photo 1). The existing substation is located 2 kilometres to the north-west of Ballina town centre. The UGC runs southwards along the local road (see photo 2) serving the substation towards the roundabout at the junction with the N59. It continues within the alignment of the N59 (see Photo 3) for a distance of approximately 750 metres before following the course of a local road (see photo 4) in a southerly direction for a distance of approximately 1.2 kilometres. It continues southwards over an area of agricultural land (see photos 5 &6) before meeting up with another third-class road. It continues eastwards along this third-class road (see Photo 7) for a distance of approximately 0.7 kilometres

before passing under with the Ballina/Foxford Railway line and then the N26 (Ballina to Foxford National Primary Route) (see Photo 8). The UGC travels southwards along the N26 for a distance of 0.5 kilometres before going off the road at the townland of Rahans (in the confines of the Hollister pharmaceutical grounds – see Photo 9) to travel eastwards crossing the River Moy (see photo 13) and joining up with another local road at Carrowcushlaun and continuing southwards along this local road. A small spur of underground cables continues southwards along the N26 before branching off to a local road and terminating in the townland of Carrowntreila (See photo 10).

- 2.4. The main route continues southwards along the local road for a distance of approximately 15 kilometres skirting the western banks of Carrowkeribly Lough, traversing beneath the Bunnafinglas River before again joining up with the N26 approximately 3 kilometres east of Foxford (See photo's 14 to 18).
- 2.5. The proposed alignment of the underground cable continues within the carriageway of the N26 for a distance of approximately 10 kilometres skirting the northern and eastern banks of Callow Lough Lower and Callow Lough Upper before crossing the River Moy at Cloongullaun c.3 kilometres north-west of the town of Swinford (see photo's 19 to 22). The proposed cable route continues through the centre of Swinford and then onto the N5 National Primary Route (see photo's 23 to 26). It continues eastwards along the N5, a distance of approximately 21 kilometres before branching off the N5 in the townland of Bohalas.
- 2.6. Approximately 3 kilometres outside the town of Swinford a spur of the underground cable route branches off the N5 near the townland of Cloonlara along a local road that runs to the north and parallel off the N5. This spur travels a distance of approximately 2.7 kilometres before terminating in the townland of Cartron to the north of the N5. The main grid connection route travels along the N5 and traverses the N17 to the south of Charlestown (see photo's 27 to 30). The grid cable route leaves the N5 c.5 kilometres north-west of Ballaghaderreen. It continues across rural land traversing (see photo 32 &33) a number of local roads and streams to the north of Ballaghaderreen before terminating at the existing 110kV substation at Tonroe c.2 kilometres to the north-east of Ballaghaderreen (see photo 34).

3.0 Planning History

Reg. Reference No.	Nature of Proposed Development	Decision	Date
Tonroe Station			
97/315	Erect transformer station with ancillary work	Granted	23/06/1997
PD99/551 (PL20.117054)	Development consisting of the erection of a 110kV overhead line linking the Flagford 200kV station with a proposed 110kV sub-station at Ballyoughter, Ballaghaderreen	Granted	16/03/2000
02/240	Alteration to the Flagford-Tonroe line. Proposed development, 1.05 km in length and consists of three overhead conducting wires and two shieldwires	Granted	16/05/2002
Moy Substation			
98/1652	Erection of addition structure and equipment to include a switchgear building, two 38kV transformers, replacement 110kV transformer and associated equipment and structure all location within ESB existing Moy 110kV substations fenced compound	Granted	29/09/1998
99/2875	Install a 15 NVAR 110kV detuned capacitor bank with damping resistors, surge arrestors, busbar extension and bay equipment at the Moy 110kV substation	Granted	31/03/2000
01/509	Install a 15 NVAR 110kV detuned capacitor bank and associated equipment in the existing Moy 110kV substation	Granted	14/05/2001
VC16.0076	Pre-app: Proposed refurbishment works to the existing Moy 110kV substation	Not SID	05/08/2014

14/444	Refurbishment and upgrading at existing substation	Granted	27/11/2014
VC16.311396	Uprate of the 110kV circuit between Glenree 110kV substation in the townland of Bunnyconnellan East, Co Mayo and Moy 110kV substation in the townland of Gorteen Co. Mayo	Not SID	11/11/2021
Cable Route (Co. Mayo): Lands within and contiguous to underground Cable, Temporary Construction Compounds, Laydown Areas and Passing Bays			
15/45 PL16.245415	Uprate of the existing Bellacorrick to Moy 110kV overhead line. Section of line to be uprated is approx. 27km long.	Granted	16/11/2015
16/115	Extend existing manufacturing yard for storage of concrete products over an area of 1.84 ha, construction of a machinery storage building, continuation of use of an existing aggregate washing plant and all associated ancillary facilities / works	Granted	19/09/2016
17/729	Construct a 56 no. bedroomed nursing home, including day rooms, kitchen, dining room, oratory, visitor rooms, activity room, medical treatment room, family accommodation, sanitary accommodation, offices, storage and all other associated facilities with GFA 3,304 sq.m connect to services and ancillary site works	Granted	01/08/2018
ABP JP0041	Realignment of the N26 at Cloongullaun (in the Townlands of Pollsharvogue and Cloongullaun). <i>This is currently under construction and the proposed development follows the approved</i>	Approved	18/12/2018

	<i>alignment</i>		
18/813	Extend existing warehouse and office space and upgrade existing effluent treatment facilities together with all ancillary site works and services.	Granted	18/02/2019
19/119	Construct 49 no. dwelling houses, with connection to public sewer and public watermain, including all ancillary site works/services	Granted	16/07/2019
20/1025	Construct a 30m multi-user lattice tower telecommunications structure, carrying antenna and dishes enclosed within a 2.4 metre high palisade fence compound with associated ground equipment and associated ground equipment and associated site works including new access track	Grant	20/05/2021
21/125	Filling of open quarry (lands) with inert material consisting of soil stone and concrete for the purpose of returning the site to agricultural use together with all ancillary site works.	Grant	14/05/2021
21/140	Alterations and extension to existing hotel comprising change of use of adjoining doctors' surgery to hotel. Works to include minor alterations to elevations, internal alterations including additional bar area at ground floors, new external beer garden to rear of premises and all associated site works	Granted	30/06/2021

Cable Route (Co. Roscommon):Lands within and contiguous to the underground Cable Route, Temporary Construction Compounds, Laydown Areas and Passing Bays			
18/300	For the development of a grid system service facility within a total site area of up to 0.55ha, to include 1 single storey electrical substation building, 1 no. customer switchgear container, 15 no. electrical inverter/transformer station modules on concrete support structures, 20 no. heating, ventilation and air conditioning units (HVAC units) access tracks and upgraded site entrance.	Granted	20/12/2018
ABP HA20.300493	N5 Ballaghaderreen to Scramoge Road Development and associated CPO. The scheme involves the construction of 34km road upgrade to new Type 1 single carriageway; 15.4km of realignment of existing roads; five roundabouts; 16 'T' junctions; three road under bridges; one road overbridge; four river bridges and 14 culverts. <i>Construction for the road improvements commenced in October 2021, with a programme of three years to completion</i>	Approved	16/01/2019

4.0 Submissions

A total of six submissions were received in respect of the application all of which were received from either prescribed bodies (four submissions) and two local authorities in which the proposed project is located. Each of the submissions are outlined under separate headings below.

4.1. Submission from Mayo County Council

4.1.1. This submission notes that virtually all of the proposed development is located underground and for the most part within the public road network. This project has the potential to result in significant maintenance, operational and construction difficulties along national, regional and local roads.

4.1.2. In respect of regional and local roads, it is noted that all regional and local roads where the installation of the 110kV ducting is proposed, have weak underlying subgrades and the structural capacity of these roads cannot be undermined by the proposed development. To address this potential issue the following conditions are necessary to protect the regional and local road network.

- The proposed 110kV ducting must not be installed in the wheel track along these roads and must be located 1.5 metres from the edge of the road pavement or as agreed on site by Mayo County Council. Where a verge exists, the ducting must be installed in the verge.
- All culverts and bridges will require directional drilling underneath or to the side of the bridge/culvert. Laying of ducting above bridges/culverts will not be permitted.
- Where a future pavement overlay is required on foot of laying the cable, Eirgrid will be required to raise the cover of any chamber located within the road pavement at no cost to Mayo County Council.
- All works undertaken in the regional and local road networks are to comply with the “*Guidelines for Managing Openings in Public Roads*” published by the Department of Transport, Tourism and Sport in April 2017.
- In order to eliminate the possibility of differential settlement associated with the duct and chamber installation, full pavement width reinstatement is to be undertaken to all public roads affected by the project.
- Road drainage must not be undermined by the installation of ducting and particularly chambers. This is especially important in Swinford Town where

any surface water drainage modifications required due to the works, must be agreed with Mayo County Council in advance.

- A road opening licence will be required by Mayo County Council for all works on the regional and local road network in advance of works commencing.
- All road signage, road markings, public realm, safety barriers affected by the project are to be returned to their pre-works condition as agreed by Mayo County Council.
- Any damage to infrastructure by Eirgrid associated with this development must be reported to Mayo County Council and repaired as directed by the Council.

4.1.3. The submission goes on to outline specific requirements on national roads making particular reference to:

- The N59 Crossmolina Road within Ballina.
- The N26 Foxford Road within Ballina.
- The junction of the N26/L1321 – N26 Cloongullane Bridge Realignment Scheme.
- The N26 Cloongullane Bridge Realignment Scheme
- The N26 Cloongullane Bridge Realignment Scheme - Swinford
- The junction of the N5/R375 in Swinford to the N5/Mayo-Roscommon border.

4.1.4. In general, it is argued that any underground cabling should not adversely affect the ability of Mayo County Council to maintain the local, regional and national road network. Due to its nature, road maintenance will require future pavement overlays of the national road network. The structural integrity of the road network should not be undermined as a result of the works to be undertaken. All pavement reinstatement shall comply with TII reinstatement specifications. A road opening licence will be required from Mayo County Council for all works on the national road network in advance of works connected. Any damage to any infrastructure along the road network must be reported to Mayo County Council and repaired in accordance with the requirements of Mayo County Council.

4.1.5. Mayo County Council and TII are currently progressing with the N59/N26 Ballina By-Pass with the scheme currently at 'Phase 2 Option Selection'. A preferred route is expected to be selected in early 2023. There is a strong possibility that the proposed route of the Eirgrid 110kV route the N59 Crossmolina Road to the N26 Foxford Road will have a significant interface with the Ballina by-pass preferred route. Having regard to the fact that the Eirgrid 110kV project may be constructed in advance of this by-pass, its installation must not impact on the by-pass construction. Further discussions will therefore be required between Eirgrid, Mayo County Council and TII once the preferred route for the N59/N26 By-Pass is selected. In the event that the 110kV route does impact on the construction of the N59/N26 by-pass the 110kV cables are to be relocated by Eirgrid at no cost to the Council.

4.1.6. Finally, in relation to more general issues the following is stated:

- Due to the significant construction impact that this development will have on the road network, Mayo County Council considers it necessary to have full-time supervision associated with the project and the costs associated with this supervision should be assigned to Eirgrid. The estimated supervision costs will be €100,000 and this is to be specified in any grant of planning permission.
- A refundable cash deposit of €200,000 is to be paid by Eirgrid to Mayo County Council to cover the costs of any pavement damage caused by Eirgrid in constructing the 110kV ducting network and chambers.
- The long-term damage fee for the road network associated with this development will be detailed as part of the road opening licence to be issued in advance of construction.
- No local roads other than those used for construction activity are to be used as haul routes.
- Eirgrid shall hold monthly progress meetings with Mayo County Council as the project proceeds. The agenda for these meetings is to be agreed in advance. An initial project start meeting is to take place in advance of project commencement.

4.2. Roscommon County Council Chief Executive Report

- 4.2.1. This report sets out details of the development proposal and the 10 townlands in Roscommon which are affected by the proposed development. Details of the relevant statutory particulars relating to Strategic Infrastructure Development are set out with specific reference to Section 182A of the Act. That section of the proposed underground cable route located between the Mayo/Roscommon border and terminating at Tonroe is indicated on maps contained in the report.
- 4.2.2. It notes that the development site is located within the 'Ballaghaderreen and Bochagh Hill Uplands Landscape Character Area' as identified in the Landscape Character Assessment as identified in the Roscommon County Development Plan (2022 – 2028). This LCA is classified as being of moderate value which represents the lowest of the LCA classification and is generally less sensitive and more tolerant of change than other landscape areas.
- 4.2.3. Details of the need for the proposed development and the underground cable works are also set out. It is noted that trenches will be approximately 1.18 metres wide and 1.6 metres deep. It is noted that the operational life of the equipment and apparatus is expected to be 40 years.
- 4.2.4. It is also noted that the application documentation contains details of the proposed North Connacht Community Fund which will be established in the event that permission is granted.
- 4.2.5. Details of relevant planning history is set out within the administrative area of Roscommon (see previous section above).
- 4.2.6. It is noted that the application was not accompanied by an Environmental Impact Assessment Report but was accompanied by a Planning and Environmental Considerations Report. It is also noted that a Natura Impact Statement was submitted with the application. It notes the overall conclusion of the NIS that the proposed development will not adversely affect the integrity of any European sites concerned.
- 4.2.7. The report goes on to set out details of the environmental considerations report submitted with the application highlighting specific issues raised in the following chapters:
- Chapter 7 – Population and Human Health.

- Chapter 8 – Air Quality and Climate.
- Chapter 9 – Noise and Vibration.
- Chapter 10 – Biodiversity.
- Chapter 11 – Land, Soils and Hydrogeology.
- Chapter 12 – Surface Water including Flood Risk.
- Chapter 13 – Archaeology and Cultural Heritage.
- Chapter 14 – Roads and Traffic.
- Chapter 15 – Material Assets.
- Chapter 16 – Landscape,

4.2.8. The various critical issues identified and assessed in the Environmental Considerations Report is set out in the Roscommon County Council Report.

4.2.9. Section 8 of the report sets out details of planning policy making particular reference to national policy including the National Planning Framework and the Climate Action Plan. Reference is also made to the Regional Spatial and Economic Strategy for the Northern and Western Regional Assembly 2020 to 2032, and the various relevant policies contained therein. Finally, reference is made to relevant policies contained in the Roscommon County Development Plan (2022 – 2028) and the Roscommon Climate Adaptation Strategy.

4.2.10. Reference is made to the report prepared by the Roads Department of Roscommon County Council. The report notes that although supportive in principle of this strategic infrastructure development, Roscommon County Council Roads Department would have legitimate concerns about the long-term effect that the proposed works would have on the N5, the L55016 and the L12037 in that significant constraints would be placed on Roscommon County Council with respect to all future works along the proposed route. To this end, a number of key observations and recommendations are made, and these are set out in full in Appendix 3 of the Council's Executive Report.

4.2.11. Reference is also made to the report prepared by Roscommon County Council's Environment Department. Observations in relation to noise levels, water protection and construction activities are highlighted and recommendations in relation to each

of these issues are set out. These details again are set out in Appendix 3 of the Report.

4.2.12. In terms of conclusions and recommendations, it is considered that the proposed North Connacht 110kV project and associated works are acceptable in principle and accord with relevant, national, regional and local planning policy. The Council acknowledge the significance of the project in the context of providing the requisite enabling energy related infrastructure which will serve to facilitate Ireland's on-going transition towards renewable energies and a more carbon neutral future. The infrastructure will enable significant additional renewable energy generation into the existing network. This in turn will serve to facilitate the transmission of electricity across the region and will contribute to the government's objective of a low carbon economy and to provide a more secure and resilient energy supply for current and future generations. Sufficient information has been submitted in the form of an Environmental Considerations Report and a Natura Impact Statement to demonstrate that the development can be undertaken to avoid adverse environmental effects in accordance with the principles of the proper planning and sustainable development of the area. Notwithstanding this, it is important to highlight that developments of this nature must ensure the integrity of both the natural and built environment. It is likewise considered vital that roads infrastructure is not unduly compromised as a result of the proposed development. In this regard the Council seeks to ensure that the structural integrity of the road network will be a central component of this strategic infrastructure development.

4.2.13. It is recommended to the Elected Members, that the principle of the proposed development be endorsed by Roscommon County Council subject to:

- The examination and consideration by An Bord Pleanála on the submitted Planning and Environmental Considerations Report.
- The undertaking by An Bord Pleanála of a Stage 2 Appropriate Assessment informed by the Natura Impact Statement submitted with the application.
- The inclusion of conditions relating to:
 - The positioning of the grid connection cabling where possible in the verge of the road in order to preserve the structural integrity of the road.

- Details of comprehensive mapping of the grid connection cable route including details of the precise cable position accompanied by cross sections of the cabling within the carriageway.
- The appointment of a dedicated liaison engineer to engage with Roscommon County Council's Roads Department through all stages of the project. Details for the written agreement of the Planning Authority.
- Construction management plan and programme of works.
- Construction details of works relevant to underground cabling.
- Cross sectional detail of the proposed trenches including all ancillary works and details of any existing services.
- Detailed proposals for remedial/reinstatement works.
- Landscaping proposals for all affected areas by the grid connection cabling works.
- The traffic management plans prepared for each stage of the proposed works.
- A pre-condition survey in the form of video survey and photographs of all delivery routes.
- Design and construction details for temporary traffic modifications at node points.
- An emergency plan.
- Details of proposed dust monitoring programme for the accompanying mitigation measures.
- The submission of a Construction and Environmental Monitoring Plan in advance of the commencement of development.
- The requirement to undertake bedrock excavation by use of rock breakers fitted with noise abatement equipment and limitations on rock blasting.
- A development contribution of €2,000 per kilometre of roadway per annum for maintenance.

Appendix 1 of the Report sets out details of European designated sites within the zone of influence.

Appendix 2 sets out a summary of likely impacts and mitigation to be implemented as detailed in the NIS.

Appendix 3 provides the internal consultations within Roscommon County Council which includes in full the report from the Roads Department and Environmental Department.

4.3. Submission from Northern and Western Regional Assembly

- 4.3.1. This short submission restricted itself to the consideration as to whether or not the proposal was consistent with the policies contained with the Regional, Spatial and Economic Strategy for the Northern and Western Region.
- 4.3.2. The proposed reinforcement of the transmission line is stated as a strategic need; being required to accommodate the significant amount of renewable energy generation in the North Connacht area and to provide robust electricity infrastructure that is necessary to facilitate business and investment growth in the region.
- 4.3.3. It is unclear from the application as to how much capacity will be added to the network through the delivery of the proposal. There is reference to the possible requirement of using a high specification cable or indeed a 220kV cable which could be used to accommodate increased inputs to the grid from renewable energy. It is noted that there are four regional policy objectives which specifically deal with electricity transmission lines (RPO 8.1 to 8.4). There is also a specific reference to the North Connacht Project in Table 11 of the Regional, Spatial and Economic Strategy. Furthermore, RPOs 4.17 and 4.19 advocate the development of infrastructure to facilitate the development of renewable energy projects onshore and offshore. The overall conclusion therefore is that the proposed development is consistent with the policy of the assembly as set out in the Regional, Spatial and Economic Strategy and will have a positive influence on the implementation of RPO 4.17 and RPO 4.19.

4.4. **Submission from the Department of Agriculture, Food and the Marine**

- 4.4.1. An e-mail received by the Board on 4th August, 2022 stated that the Department has no objections to the aforementioned proposed development provided that the development complies with all relevant environmental legislation.

4.5. **Submission from Irish Water**

- 4.5.1. Irish Water notes that there appears to be 79 location points within the application where the 110kV underground cable will cross Irish Water assets. The applicant has proposed for the 110kV underground cable to cross below the identified Irish Water assets at 65 of these location points. Based on the details provided, Irish Water have no objection to this part of the proposal provided that the applicant ensures that the Irish Water assets are protected during the construction and operational phases of the development and that adequate separation distances are provided between the Irish Water assets and the underground cable and that any development near Irish Water assets shall be carried out in compliance with Irish Water standards and Codes of Practice.
- 4.5.2. In the 14 location points where it is proposed to cross above Irish Water assets it is stated that insufficient details have been provided to Irish Water for these 14 location points to allow Irish Water to be satisfied that the potential adverse impacts to public infrastructure can be adequately mitigated and appropriate separation distances can be achieved. Irish Water requires sufficient clear and detailed information indicating that no impact to Irish Water assets will arise as a result of the cabling works undertaken. The applicant must propose that appropriate and adequate mitigation measures as part of the design proposal are incorporated to ensure that:
- No additional load is applied to Irish Water assets from above.
 - Sufficient access is established to maintain and replace Irish Water assets.
 - No impact on Irish Water assets will arise as a result of the cabling works undertaken.
 - Agree the detailed design for the crossings above with Irish Water and enter into an associated 'build over agreement'.

4.5.3. It is therefore considered that Irish Water will take a precautionary approach to any assessment of this kind and respectfully request further information to address the points of concern regarding the proposed development.

4.6. **Submission from Transport Infrastructure Ireland**

4.6.1. By way of introduction, TII appreciates the importance of a secure and reliable supply of electricity which is an essential requirement for Ireland's current and future economic wellbeing and fully supports the government's policy in this regard. However, the consequence for the national road network and the safety of those who use it is a very important consideration also. The potential significant impact on the national road network is a concern of TII given its responsibility for national roads and its general duty to secure the provision of a safe and efficient road network. While TII in principle supports the objective of the North Connacht Project, it is hopeful that the project can be developed in such a way as to address the significant concerns outlined below and avoid any adverse impact on the safety and security of the national road network. The proposal in this instance involves excavation along approximately 35 kilometres of the strategic national road network.

4.6.2. The TII make reference to SI 612 of 2021 which relates to the *Updated Infrastructure Safety Management Directive (2019/1936)*. These safety regulations apply to roads in the State which are part of the Trans European Road Network, to motorways and to other national primary routes whether they are at design stage, under construction or in operation. Regulation 5 of the 2021 Road Safety Regulations provides that:

- (1) *Any person undertaking a substantial modification to a road to which these regulations apply shall ensure that a road safety impact assessment is carried out for the project in accordance with the guidelines issued by the Authority.*
- (2) *The Road Safety Impact Assessment shall be carried out at the initial planning stage of the infrastructure before:*
 - (a) *In the case of an infrastructure project coming within Part 4 of the Act 1993.*
 - (b) *Any other case submitting an application for consent for infrastructure project under the Planning and Development Act 2000 and regulations made under Part XI of the Act.*

(3) *Any Road Safety Impact Assessment being carried out shall:*

(a) Indicate this road safety consideration which contributed to the choice of the proposed solution and

(b) Provide all relevant information necessary for the cost benefit analysis of the options assessed.

4.6.3. It is the expressed view of Transport Infrastructure Ireland that the application cannot be considered other than a substantial modification in the context of the relevant roads. It appears in this instance that a Road Safety Impact Assessment has not been undertaken and on this basis, it is argued that the application may in fact be premature with the potential implications for the process of the subject application.

4.6.4. It is noted that three potential route options were identified all of which followed the public road network and which interact, to varying degrees, with the strategic national road network. However, it is argued that the alternatives assessed by the applicant fail to take into account the strategic importance to the State of the national road network as part of the evaluation of alternatives. It is argued that the applicant has not drawn any meaningful distinction between the strategic national road network and other parts of the public road network. The fact that national and regional roads were assigned the same sensitivity in terms of impact, when evaluating alternatives, suggests that the applicant has not considered and given sufficient weight to the national strategic importance of the national road network.

4.6.5. Furthermore, the applicant has not assessed the road safety implications of different underground cable routes identified as part of its option selection process. The applicant furthermore, has not considered any road safety standard or road safety implications of the different route options. This is not acceptable as the proposed development will have a disruptive impact on approximately 35 kilometres of strategic road network not just during construction but also permanently into the future during routine maintenance or outages which may require investigative works within the carriageway. Given the significant safety concerns which are particular to the national strategic road network, this should have been accurately reflected in evaluating the various options.

4.6.6. Furthermore, as part of the evaluation process, the proposal does not consider the impacts of the proposed development on the reliability of the national road network.

The assessment does not consider the very significant impact that repairing unplanned outages could have on the road network particularly the national strategic road network when comparing a comparison between the underground cable and overhead line options.

- 4.6.7. With regard to the economic implications of placing the underground cables in the national road network, this is purely assessed in relation to the cost to Eirgrid of constructing the proposed development. The applicants have not considered the potential economic implications of the proposed development on the national road network either with regard to additional maintenance or operational costs that will be incurred by virtue of the presence of cables, or the loss of future economic opportunity caused by the prevention of future upgrade of the national roads due to the presence of buried cables. If approved by the Board, this could have significant economic implications for the State by increasing its costs associated with operating and maintaining the sections of the national road network in question. The construction of the proposed scheme will result in a minimum of 18 months disruption to traffic both commercial and private along the N5 and N26 corridors.
- 4.6.8. It is also argued that the proposed development could undermine many of the key sectoral objectives set out in Chapter 7 of the National Development Plan (2021 – 2030) which relates to enhanced regional accessibility. It is noted that one of the key objectives seeks to maintain the strategic capacity and safety of national road network including planning for future capacity enhancements. The requirement to safeguard the carrying capacity, operational efficiency, safety and significant national investment are key components of national policy as they relate to roads. Such key policy objectives are recognised in the National Planning Framework (National Strategic Outcome 2) also.
- 4.6.9. Given the extensive use of the national road network, TII would have hoped that the impacts of the proposed development on the national road network would have been the subject of detailed consideration and assessment and that appropriate mitigation measures would be identified to safeguard the State's investment in the strategic national road network. Considering the substantial investment made over the previous decade on road infrastructure, it is considered that the operational capacity of the national road network needs to be safeguarded.

4.6.10. The assessment undertaken by the applicant in the Planning and Environmental Considerations Report does not appear to address in any meaningful way, the particular challenges of the cable and the trench reinstatement. It does not consider the impact of the joint bays on the structure or the surface of the road or the degree to which the surface of the running lane will be affected by the presence of joint bays or the consequential maintenance liability that will arise indefinitely.

4.6.11. Standard documentation in respect of road openings are not referenced in the document submitted with the application and as such it is not clear to TII whether the Board has enough information, data or analysis to conduct a proper assessment of the impact of the proposed development on the national road network.

4.6.12. The proposed development could also have adverse implications on maintenance activities including:

- Repair of safety barriers impacted by errant vehicles.
- Maintenance and remediation of longitudinal french drains.
- Replacement of damaged signs or installation of additional signs.
- The installation of ITS equipment.

4.6.13. TII understand that once a cable is laid in the pavement, it may not be possible to overlay the pavement with a deeper surface layer because further burying the cable results in “derating” or a reduction in the carrying capacity of the cables. Pavement overlay is a standard pavement renewal activity that is an essential part of pavement upkeep and the inability to carry out such standard maintenance activities raises significant concerns for TII in relation to the maintenance of the national road network.

4.6.14. TII understand that cable joint bays are typically 6 to 10 metres long and up to 2.5 metres in width and 2.5 metres deep. There is no indication that the applicant has given appropriate consideration to the potential impacts on the road or embankment structures arising from the excavation and installation of these structures.

Furthermore, no assessment has been provided as to the extent of which cable joint bays will impact on the performance and on-going maintenance of the pavement structure after reinstatement. Due to the presence of HGVs on national roads any filling of the joint bays with sands could give rise to uneven surfaces.

- 4.6.15. The presence of underground cables and joint bays in a road cross section effectively precludes future improvement to that section of road. This is particularly problematic on designated strategic national roads.
- 4.6.16. In relation to decommissioning, no consideration or assessment has been provided in relation to the impacts of decommissioning on the national road network which would involve significant further excavation of the national road in question.
- 4.6.17. It is suggested that the proposal undermines existing investment of approximately €140 million in the development of the N5 Charlestown to Ballaghaderreen By-Passes. The documentation submitted with the application does not address these significant consequences. This is a serious concern to the TII.
- 4.6.18. Many of the concerns highlighted above were experienced with the installation of high voltage electricity cabling on the N15 at the Barnsmore Gap, County Donegal.
- 4.6.19. Also, in relation to works undertaken on the N15, it was determined at detailed design/construction phase that it was not possible to divert cable latterly over bridges so that the road had to be excavated on the bridge approaches in order to accommodate the cables below the bridge. Furthermore, unanticipated impacts arose at construction phase to drainage culverts because it did not prove feasible to divert cables latterly off the road as proposed at planning stage.
- 4.6.20. The applicant does not give considerations to the current or future legal implications of Ireland's obligation to comply with the TEN-T Regulation. This new TEN-T Regulation will introduce an obligation on member states to ensure that:
- (a) *The safety of road transport infrastructure is ensured, monitored and when necessary improved in accordance with the Infrastructure Safety Management Directive.*
 - (b) *Roads are designed, built or upgraded and maintained with the highest level of safety of traffic through in particular the implementation of the latest technologies.*
 - (c) *Roads are designed, built or upgraded with the highest level of environmental protection, including as appropriate through low noise surfaces and the collection, treatment and release of water run-off.*

- 4.6.21. TII is concerned about its own ability to deliver the obligations set out in the proposed TEN-T Regulation on the N5 if the underground cable and joint bays are installed as proposed in the current application.
- 4.6.22. It is stated that while TII has engaged with Eirgrid during the course of the North Connacht Project, the issues identified during the engagement have not been adequately addressed in the subject application.
- 4.6.23. It is considered that the North Connacht Project conflicts with Government objectives set out in the National Planning Framework and the National Development Plan as well as the Section 28 Ministerial Guidelines 'Spatial Planning and the National Roads Guidelines for Planning Authorities (DoECLG, 2012). TII remains willing to engage in a constructive manner in respect of the proposed development in order to address the very real and live concerns about the implications of the proposed development on the national road network.
- 4.6.24. TII considers that there is sufficient merit for a further information request to consider alternative routing options and less invasive proposals in the vicinity of the national road prior to any decision on this planning application. But on the basis of the concerns set out above TII is not in a position to support the current application and considers that the development proposal conflicts with foregoing national road policy provision.
- 4.6.25. TII request that if the Board is proceeding to assess the application it can convene an oral hearing into the application to allow for a more detailed consideration of the matters identified.

5.0 An Bord Pleanála Request for Additional Information

- 5.1.1. On the basis of the information received from the various parties, particularly the submissions received from TII and Irish Water. The Board requested the following information from the applicants on August 31st 2022.
- 1. The Updated Infrastructure Safety Management Directive (EU) 2019/1936 was transposed into Irish Law by the European Communities (Road Infrastructure Safety Management) Regulations (SI612/2021). In accordance with Article 5 of the said Regulations, the applicant is requested to undertake a Road Safety*

Impact Assessment. This assessment should in accordance with the above Regulations;-

(a) indicate the road safety considerations which contributed to the choice of the proposed solution, and

(b) provide all relevant information necessary for a cost benefit analysis of the options assessed.

(c) Any other matters specifically concerning road safety issues which the applicant may wish to address in the context of Directive EU 2019/1936.

- 2. Please comment on the extent to which the impact on the national strategic road network was a relevant factor in identifying and assessing the various route corridors which were considered in the Step 4 A Report, submitted as part of the Planning and Environmental Considerations Report. The submission from the TII content that the constraints mappings identified along the preferred corridor does not take into account the strategic importance to the State of the national road network and that Eirgrid has not drawn any meaningful distinction between the strategic national road network and other parts of the public road network. Please comment on the above, and where appropriate providing details of the any considerations given to the impact on the national road network in the alternative / preferred routes examined by the applicant.*
- 3. Please comment to what extent road safety standards and /or road safety implications were taken into consideration when assessing the various route options, including the preferred option in the Step 4A Report.*
- 4. Please comment whether or not Eirgrid, in assessing the various route options, considered the potential impact that could arise from repairs underground cable route and its implications for the safety and operational capacity for the national road network. Where Eirgrid did consider this issue, please provide details of same.*
- 5. Please provide further details of any implications, which were taken into consideration regarding costs associated operating, maintaining or upgrading of the National Road Network in assessing the alternative route options considered by the applicant.*

6. *Please provide further information as to how it is proposed to install and maintain and reinstate the cable and trench network along the National Road Network, how it is proposed to install and maintain and reinstate the joint bays along the National Road Network to the standard required to ensure the safe operation and capacity on the network, particularly along the running lane of the national road network. In this regard further details are required in relation to the re-instatement of the road pavement surfacing, sub-base, capping layers and any geotextile strengthening layers, particularly having regard to the high proportion of HGV traffic using the national road network and the potential implications which any substandard re-instatement could have for the structural integrity of the road network.*
7. *Please provide further details in respect of future maintenance liabilities with regard to such works to be undertaken.*
8. *There is a strong possibility that the proposed route of the Eirgrid 110kV route from the N59 Crossmolina Road to the N26 Foxford Road will have a significant interface with the Ballina By-Pass 'preferred option'. Accordingly, considering that the Eirgrid 110kV project will be constructed in advance of the N59/N26 Ballina By-Pass, its installation in terms of alignment and level must be such that it does not impact on the By-Pass construction. Please provide evidence that that the alignment of the proposed route of the Eirgrid 110kV cable does not impact or compromise on the proposed preferred option for the by-pass route and that an agreement in principle in respect of both routes have been secured with both Mayo County Council and Transport Infrastructure Ireland.*
9. *Further details are required as to how the cables will be placed within the road specifically in the context of other subsurface elements such as road drainage, culverts etc and how any potential conflicts between the various utilities/drainage arrangements which may arise would be successfully addressed.*
10. *Please comment on TII assertion that a buffer zone will be required in the vicinity of the high voltage cables which could compromise TII's ability to carry out fundamental and essential maintenance such as repair of safety barriers, signage, ITS equipment and drainage etc without prior approval of ESB networks or their presence on site to monitor such works.*

11. *Please comment on whether or not any pavement overlay on the carriageway, an essential part of pavement upkeep, could result over time, in a possible 'derating' or a reduction in the carrying capacity of the underlaid cable.*
12. *Please comment on TII's assertion that the laying of the underground cable within the national road network significantly compromises or could preclude the Authority's ability to vertically or horizontally adjust the alignment of the road for road safety or other purposes, particularly in the case of sections of the N26 which comprise of unimproved legacy roads that may be the subject of significant improvement going forward.*
13. *Further details are required as to how the proposed installation of cables will comply with the TEN-T Regulations which introduces an obligation on member state to ensure (inter alia):*
 - (a) *The safety of road transport infrastructure is ensured, monitored and when necessary, improved in accordance with 'The Updated infrastructure Safety Management Directive'*
 - (b) *The roads are designed, built or upgraded and maintained with the highest level of safety of traffic through, in particular, the implementation of the latest technologies;*
 - (c) *The roads are designed, built or upgraded with the highest level of environmental protection, including as appropriate through low noise surfaces and the collection, treatment and release of water run-off.*

The applicant is requested to demonstrate that the proposed installation of cabling will not undermine or compromise any of the States long-term objectives or obligations under the current or any future long-term requirements set out for national road infrastructure set out under the TEN-T Regulations.

14. *Please provide any additional comments in respect of the TII submission received by the Board on August 2nd which the applicant considers relevant to the Board's determination of the application.*
15. *The submission from Irish Water notes that there are 79 locations along the route where the 110kV underground cable will cross Irish Waters assets. It is noted that at 14 of these location points, Eirgrid propose for the cable to cross above existing Irish Water Assets. The applicant is requested to provide clear and detailed*

information to demonstrate that there will be no impact on Irish Waters assets as a result of the cabling works undertaken. Where there is no other option but to cross above Irish Water assets, the applicant is required to demonstrate that adequate mitigation measures are put in place to ensure that inter alia:

- (a) That mitigation measures can be put in place to ensure that there are no adverse impacts on any of Irish Waters Assets.*
- (b) Updated designs demonstrating that there will be no additional loads applied to Irish Water Assets from the laying of grid connection cables associated with the project.*
- (c) Detailed proposals demonstrating how it will be possible for Irish Water to access, maintain and without difficulty replace Irish Water assets in the locations beneath the 110kV underground cables in the future*

5.2. Response from Eirgrid

The Eirgrid submission expresses disappointment with the TII submission as the proposal is precisely the same as that granted by An Bord Pleanála in May 2022 as part of the Celtic interconnector project in County Cork, which also utilised a National Primary Route (N21) for the laying of an UGC. In the case of the Celtic interconnector development, Eirgrid note the following:

- TII is cognisant of the strategic importance of the project which is fully in accordance with government objectives.
- There is a parallel critical requirement to ensure that the carrying capacity and safety of the existing natural primary route is maintained.
- TII seeks to identify mechanisms to ensure that the proposed transmission infrastructure can proceed in a complementary fashion safeguarding the safety and operational efficiency of the road network.
- TII request the application of appropriate conditions if any approval is forthcoming from the Board.

It is entirely unclear to Eirgrid why such issues cannot be addressed through post consent engagement between Eirgrid, at Mayo County Council, Roscommon County Council and TII on matters of detailed design. Eirgrid gives an undertaking to abide

by any appropriate conditions issued by ABP. With regard to the specific issues raised in the additional information request, Eirgrid replied as follows:

1. Road Safety Assessment

The Regulations pertaining to Directive EU 2019/1936 (SI 612/2021) were published on 26/11/2021. This was subsequent to Eirgrid identifying the proposed nature, location and extent of the development as part of the identification of various options (Step C4 Report prepared by Mott Mc Donald). Thus, the requirement for a Road Safety Impact Assessment was not in place at the time Eirgrid were identifying the options for the project route. Furthermore, the Regulations apply to '*any person undertaking a substantial modification to erode to which these Regulations apply*'. It is argued that the proposed development does not constitute a 'substantial modification'. This is predicated on the basis that:

- Following installation, the road above the trench will be reinstated to match the existing environment.
- The laying of the ducting will be sequential and transient in nature and thus will only affect a portion of the road at any given time.
- Joint bays are located at an interval of 850m apart and take approximately 3 days to install.
- No new accesses onto the road are proposed.
- There will be no discernible changes in the traffic flow during the operational stage of the underground cable route the traffic flow will be managed in accordance with long established protocols during the construction phase in consultation with the planning authorities and TII.

notwithstanding the argument set out above a road safety impact assessment has been submitted and is appended to the submission as enclosure No. 3.

2. Impact on the national strategic road network as a relevant factor in identifying and assessing the various route corridors.

The Step 4 A report primarily considered the overhead line (OHL) and underground cable options (UGC). The initial route sections for the UGC were identified through desktop analysis to determine feasibility routes along the public roads. Road type

and width were relevant factors. Dijkstra's algorithm was used to find the shortest path between two points. The criteria taken into consideration include:

- Road length
- Total number of crossings
- Roads less than 5 m in width
- Roads with congested underground services.

Details as to how the model was applied in this instance is set out in the response. The study area was considered to have a limited road network suitable for the laying of the UGC and the N5 was considered an opportunity in this instance. It is noted that there is a long history of utilities and services being placed underground in the national road network. The consideration of alternative route options was informed as a result of direct engagement with TII. As a result of such engagement, it was decided to avoid a portion of the national road network between Cuillonaghton and Ballina. While the strategic importance of the capacity of the national road network is of profound and fundamental importance to TII, it forms one of the many factors which have to be taken into consideration by Eirgrid in carrying out its multi criteria analysis on route options. TII are incorrect in suggesting that the matter was ultimately ignored and was not a prominent consideration in carrying out route options.

3. The extent to which road safety standards and road safety implications were taken into consideration in assessing the various routes options.

Road safety and traffic management issues including the ability to carry out general maintenance and safety works to existing roads was a central consideration in identifying route options. A total of four meetings (virtual) took place between Eirgrid and TII between February 2021 and March 2022. Details of the topics discussed in the meetings are set out in the response. In addition, 13 steering group meetings were also undertaken between 2020 and 2021 to discuss the interaction of transmission infrastructure with the national road network as well as other strategic issues. The issue of traffic safety was a key topic.

The application submitted was accompanied by a Planning and Environmental Considerations Report (PECR). S14.5 and S14.6 specifically address issues in

respect of driver delay, community effects and accidents and safety. It concluded that there will be a negligible increase in collisions in the study area. Road safety measures have been specified in both the PECR and the traffic management plan. Specific details in relation to detailed safety protocols will be agreed with the planning authorities and TII prior to the commencement of development. Any safety protocols will be the subject of strict monitoring and will be altered where necessary to address particular circumstances.

4 The implications for the safety and operational capacity of that national road network resulting from the installation of the UGC.

Access to the UGC's, if ever required, will be at the joint bays only. The extent to which traffic management is required in this situation will depend on the location of the joint bay within the roadway whether in the verge, hard shoulder, or carriageway. The wider the road, the lesser the potential impacts. The width of the N5 between Swinford and Ballaghaderreen, is deemed most suitable to accommodate the cable. (See Step 4B Report - Appendix E of the PECR). Section 14.6 of the PECR included an assessment of the operational phase. It concluded overall that there will be no discernible changes to traffic flows arising from the operation of the UGC. The impact therefore can be described as negligible. In the unlikely event of a cable failure, protocols will be agreed with the TII and the respective planning authorities.

5. The extent to which costs associated with operating maintaining and upgrading the national road network were considered in assessing alternative route options

It is respectfully submitted that this is not a matter in respect of the proper planning and sustainable development and should not be taken into consideration by the Board in determining the merits of the proposed development. Notwithstanding this point, a working group was established to discuss this issue in the context of this project and several others. Eirgrid accepts that there may be specific and detailed design issues of a technical or engineering nature in respect of the laying of cables within the national road which will have associated costs. These are matters that are best addressed as part of a post consent engagement between the developer TII and the planning authorities.

6. Provide further details as to how it is proposed to install and maintain and reinstate the cable and trench network along the national road network including details of the road pavement surface, sub-base, capping layers and geotextile strengthening layers, having particular regard to the high proportion of HGV Traffic using the National Road Network.

Typical cross sections of a 110 kV cable trench are shown in figures within the response and Enclosure No. 5. These include 3 no.160mm power ducts and two 125mm communications ducts. The trench has a maximum width of 930mm and the minimum depth to the top of the power ducts of 950mm. The re-instatement, road surfacing, sub-base, capping layers and any geotextile strengthening layers will be as per the TII specification "*Requirement for the Reinstatement of Openings in National Roads CC-PAV-04007*" and "*Guidelines for Managing Opening in Public Roads*". The trench will be installed as close to the edge of the road as possible including the hard shoulder in the case of National Roads.

Typical dimensions of a joint bay (located approximately every 500m to 950m along the route) is 6m in length, 2.5m wide and 2.4m deep. Dimension may vary depending on the installation requirements of the cable manufacturer. The layout is indicated in figures 4 & 5 of the submission. Joint bays are typically constructed in advance of the cable installation. A temporary infill will be installed prior to laying the cable. Post cable laying, the road surface will be permanently reinstated as per TII specification "*CC-PAV-04007*" and "*Guidelines for Managing Opening in Public Roads*". Communication chambers and link boxes will also be located within the joint bays. There will be two manholes associated with each joint bay typically located within the verge or hard shoulder to minimise disruption. For maintenance, 110kV cables are typically inspected every 3 years. This involves sheath testing as well as inspection of cable terminations and link boxes. Routine maintenance does not require access to joint bays.

7. Please provide further details in respect of future maintenance liabilities with regard to such works to be undertaken.

It is respectfully suggested that this is not a matter for the Board. Without prejudice to this view, Eirgrid has been in discussion on this issue with TII. The applicant is of the view that these measures are best addressed as part of a post consent

engagement between the developer, TII and the planning authority regarding the detailed design and commercial aspects of the development.

8. Potential for the proposed development to interfere/interface with the Ballina bypass preferred option.

At the time of the submission, June 2022, no preferred route details had been published in respect of the N59/N26 Ballina By-Pass; Eirgrid notes that the TII submission does not include a map, nor makes any other specific reference to an identified preferred route. It appears as an indicative line in the Ballina and Environs Development Plan 2009-2015; however, it is not identified in the current National Development Plan. Even in the context of this current consultation, there is no exact technical or other information that might inform the exact alignment of the cable; nor is there currently any guarantee of capital funding of such relief road. It is the case that the provision of such road design detail as would be necessary to facilitate any specific routing of the proposed cable will not be forthcoming in the short term.

Notwithstanding this however, the proposed cable route has been routed predominantly along the existing road network at Ballina, along which are established residential dwellings and agricultural landholdings, precisely in order to avoid any subsequent conflict with a future, as yet non-designed, relief road corridor over private lands, should such development ever proceed. Furthermore, it will likely be the case that the proposed cable infrastructure will likely be in place well before the planned road scheme occurs on site. Eirgrid is of the view that the best practical solution in this matter is to ensure an ongoing engagement and collaboration between Eirgrid and TII and the roads authorities (and indeed with other relevant parties) with regard to the development of the separate infrastructure projects, with subsequent agreement of all relevant details post-consent. There is an existing protocol (see enclosure 4 of submission) between TII, ESB and Eirgrid which outlines interactions required between the stakeholders in question during the development phases of major road schemes. This protocol will ensure the early identification of potential conflicts and the timely design and approval of all necessary alterations to existing transmission circuits. The protocol will also ensure the early identification of opportunities that may arise between national road development schemes and new transmission circuits that are at route selection

stage. It is Eirgrid's view that this protocol can be implemented successfully should the development of the bypass ever proceed.

9. Details of how the cable will be placed within the road in the context of other subsurface elements such as road drainage and culverts etc. and any potential conflicts that could arise with other utilities.

Where existing utilities need to be crossed or other obstacles are encountered (e.g. culverts), the depth to the top of the power ducts could be deeper or alternatively could be reduced to a minimum of 450mm as shown in Figure 7 of the submission. Where existing utilities need to be crossed or other obstacles are encountered (e.g. culverts) and the depth to the top of the utility/culvert is less than 910 mm, crossing below is required as shown in Figure 8 of the submission.

10. Please comment on the assertion that a buffer zone will be required in the vicinity of high voltage cables which could compromise TII's ability carry out fundamental and essential maintenance and repairs of barriers, signage ITS equipment etc.

There are numerous examples where 110kV cables have been laid within the national road network and these are set out in Table 1 of the submission. The provision of cables in roadways has been subject to a standard approach to the development of utility services for several years now. A wayleave will be associated with the cable route and will restrict the installation of other services within the defined limits associated with the wayleave. The typical defined limits of a wayleave for a 110 kV cable is two metres to either side of the centreline of the trench. As the cable trench is largely within the road extents, this will likely not compromise TII's ability to carry out fundamental and essential maintenance in the verge including repair of safety barriers, signage, ITS equipment and drainage. Due to access requirements to the cable route, other services cannot be installed longitudinally above the route, however new services could cross above the route if required. In any event, the horizontal and vertical separation between the cable installation and other utilities, both existing and future, are restricted to 300mm or greater.

11. Please comment on whether or not any pavement overlay on the carriageway, an essential part of pavement upkeep, could result over time, in a possible 'derating' or a reduction in the carrying capacity of the underlaid cable.

Additional pavement overlay does cause derating to an underground circuit. Based on new target ratings for the cables, an additional depth of 350 mm overlay can be added without derating the cables below the target ratings of the circuit. This includes trefoil cable over lapping formation which is the worst-case scenario. In the unlikely event that the proposed overlay will be higher than the acceptable overlay, the Transmission System Operator (Eirgrid) and the Transmission Asset Owner (ESBN) will need to be informed. A technical working group will be formed to review the proposed overlay to understand if there will be a derating or reduction in the carrying capacity of the underlaid cable. Furthermore, the protocol referred to above and signed in October 2020 will ensure the early identification of potential conflicts and the timely design and approval of any necessary alterations to existing transmission circuits should such issues arise. It is Eirgrid's view that this protocol can be implemented successfully should vertical or horizontal adjustments ever be required on national roads.

12. The laying of the underground cable within the national road network significantly compromises or could preclude the Authority's ability to vertically or horizontally adjust the alignment of the road for road safety or other purposes, particularly in the case of sections of the N26 which comprise of unimproved legacy roads that may be the subject of significant improvement going forward.

It is not accepted that the laying of the underground cable within the national road network significantly compromises or could preclude the Authority's ability to vertically or horizontally adjust the alignment of the road for road safety or other purposes. In the event of a proposed vertical or horizontal adjustment the Transmission System Operator (Eirgrid) and the Transmission Asset Owner (ESBN) will need to be informed. A technical working group will be formed to review the proposed vertical or horizontal adjustment to understand what, if any, issues arise. Reference is again made to the protocol in this regard.

13. Further details as to how the proposed installation of cables will comply with the TEN-T Regulations.

It should be noted, and as stated at the outset that the issues related to developing UGC in the national road network and EU TEN-T Comprehensive Network arose in the case of the Eirgrid's Celtic Interconnector. In TII's submission in respect of the Celtic Interconnector, it was acknowledged by TII that the issues of concern are of technical or engineering nature that cannot fully be identified and resolved ahead of the detailed design process and TII would welcome the application of appropriate conditions. Eirgrid is of the view that these are matters that are best addressed as part of post-consent engagement between the developer, TII and the planning authority regarding the detailed design of the development; this includes specific details of cable trenching, and matters of traffic management, operation and maintenance. In this regard, Eirgrid confirms that it is willing to abide by any relevant condition of Approval for such engagement and agreement as may be deemed appropriate by the Board.

14. Please provide any additional comments in respect of the TII submission received which the applicant considers relevant to the Boards determination of the application.

Specific and detailed issues of a technical or engineering nature may arise in respect of the laying of cables within the National Road. In this regard, Eirgrid is of the view that these are matters that are best addressed as part of post-consent engagement between the developer, TII and the planning authority regarding the detailed design of the development. This includes specific details of cable trenching, and matters of traffic management, operation and maintenance. Eirgrid confirms that it is willing to abide by any relevant condition of Approval for such engagement and agreement as may be deemed appropriate by the Board. Eirgrid is satisfied that there is sufficient information before the Board in this application for approval to enable it to make a reasoned and robust decision.

15. The crossing of the cable above Irish Water's assets.

Eirgrid is satisfied that it can comply with any requirements set out by Irish Water by way of condition(s) of approval relating to post-consent agreement of matters of detailed design and methodology. As referenced in RFI 9, Eirgrid have standard drawings for crossing above and below of third-party services. Eirgrid accepts that there may arise specific and detailed design issues of a technical or engineering nature in respect of the 110kV underground cable crossing Irish Waters assets. In this regard, Eirgrid are of the view that these are matters that are best addressed as part of post-consent engagement between the developer, Irish Water and the planning authority regarding the detailed design of crossing Irish Water assets. This will also include for the maintenance and replacement of Irish Water assets. Eirgrid respectfully suggests that this can best be dealt with by the Board by way of any appropriate condition of approval, and confirms it is willing to abide by any such condition

5.3. Further Submissions in Response to Eirgrid's Submission

5.3.1. Submission from the Development Applications Unit

It is noted in Table 13.7 of the Environmental Considerations Report that the River Moy crossing is at an Area of Archaeological Potential but that no underwater Archaeological Impact Assessment has been included in the submission. Therefore, the Department advises that should permission be granted, a total of 4 conditions relating to archaeology should be attached. Each of these conditions are set out in the submission.

Submission from Irish Water

Upon reviewing the applicant's submission and in particular Drawing No. XDC-CBL-STND-H-002 Sheet 002, Irish Water is of the opinion that these drawings do not fully address the requirements above. Notwithstanding this, Irish Water acknowledge that these issues can be adequately addressed as part of post-consent engagement or agreement though detailed design. Therefore, based on the information available, Irish Water is of the opinion that many of the interactions could be supported subject to a detailed design being agreed with Irish Water in advance of any works, and other valid agreements including easements being put in place. Detailed design

proposals must be in accordance with Irish Water's Technical Standards, Codes of Practice, and Standard Details and other associated Irish Water requirements. This includes, but is not restricted to, requirements for separation distances between the existing Irish Water assets and proposed structures, other services, trees, etc. The applicant must ensure that appropriate and adequate mitigation measures are included as part of their design proposals for all locations interacting with Irish Waters public infrastructure.

The applicant is also required as part of the detailed design engagement to demonstrate to Irish Water that no other option is feasible but to cross above Irish Water assets when laying the 110 kV underground cable at the 14 location points identified Appendix 1. Furthermore, detailed designs will be in accordance with Irish Water's Technical Standards, Codes of Practice, standard details and other associated Irish Water requirements. In the event that planning approval is issued Irish Water recommend that the Board incorporate 6 conditions.

Submission from Northern and Western Regional Assembly

Having considered the further information provided, the NWRA consider that it does not affect consistency with the RSES. The Assembly has previously supported the North Connacht Project and identified its consistency with the RSES and this remains it's position.

Submission from Transport Infrastructure Ireland

The observations outlined in TII's initial submission remain the same. While TII considers that the queries raised by An Bord Pleanála, as reflected in the response documentation submitted by Eirgrid, are comprehensive and address issues relating to the strategic significance of the national road network impacted, i.e. the (EU TEN-T) N5 national primary road and the N26, national primary road, it is not considered that the FI submission fully addresses the request by the Board nor the concerns raised by TII. Notwithstanding this, TII will continue to engage with Eirgrid to identify solutions to minimise negative impacts on the operation, maintenance and development of the strategic road network while progressing the national grid network.

Eirgrid, ESB and TII are working on procedures to assist the North Connacht Project. These include:

- (a) further detailed design to identify the potential for cable route options off the national road pavement but within the road reservation and the planning application red-line boundary,
- (b) exploration of the potential for removal of joint bays from the national road network within the Project, and
- (c) exploration of directional drilling options, or other appropriate alternatives.

On completion of the foregoing, TII considers that it may be possible to develop an approach that facilitates the North Connacht Project whilst also safeguarding the strategic function, levels of safety and significant exchequer investment in national roads network.

TII considers that the agreed outcomes of the above tasks, which are expected over the coming months, can provide a framework for Eirgrid to progress the North Connacht Project complementary to safeguarding the strategic function, levels of safety and significant exchequer investment in national roads, in accordance with the provisions of official policy. Pending the outcome of such work.

To this end TII respectfully suggests, for the consideration of An Bord Pleanála, the following three conditions which could be incorporated into any decision to permit the development proposal.

1. Where it is proposed to lay high voltage cabling within the national road reservation as detailed in the application drawings, all cabling shall be laid outside paved areas of the national road. In the event that cable laying must occur in the national road pavement, due to the absence of available non-paved areas, verge space or other adjacent lands, appropriate plans and details shall be agreed with the relevant roads authority in collaboration with TII in advance of any construction.

Reason: *To safeguard the significant investment in the national road network in accordance with Government objectives and to ensure the North Connacht Project is compatible with future improvements and maintenance works to the national road network, in the interests of road user safety.*

2. The proposed joint bays shall be temporary and shall be removed once the jointing of high voltage cabling is complete. A standard detail and construction

methodology for the use of temporary joint bays in the national road reservation using trench boxes, or similar, shall be agreed with the roads authority in collaboration with TII, prior to the commencement of development. On completion of the cable jointing at each joint location, the temporary joint bays shall be removed and the national road verge and/or pavement shall be reinstated to the satisfaction of the roads authority in collaboration with TII.

Reason: *To safeguard the significant investment in the national road network in accordance with Government objectives and to ensure the North Connacht Project is compatible with future improvements and maintenance works to the national road network, in the interests of road user safety.*

3. All high voltage cabling in the vicinity of national road structures shall avoid the use of the national road structure. Horizontal Directional Drilling (HDD) or other appropriate alternatives shall be utilised for all crossings with appropriate plans and details to be agreed with the relevant roads authority in collaboration with TII in advance of any construction to ensure avoidance of national road infrastructure, including structures, associated embankments, drainage, communications, etc.

Reason: *National road structures do not have sufficient depth in the structure deck to accommodate high voltage cabling and alternative adjacent HDD crossings are required in the interests of safeguarding the significant investment in the national road network in accordance with Government objectives and to ensure the North Connacht Project is compatible with future improvements and maintenance works to the national road network, in the interests of road user safety.*

While reference is made in the Eirgrid submission to the similarities between the subject application and the Celtic Interconnector Project, the latter project was of international and national significance, and therefore should not be used as a precedent. The Board should be aware that there is a fundamental difference between the section of the N5 National Primary Route utilised for the North Connacht Project and N25 used for the Celtic Interconnector. In the opinion of TII the North Connacht Project is not of the same strategic importance as the Celtic Interconnector. The latter was specifically identified as a national investment objective in the NDP, the same cannot be said of the North Connacht Project. TII does not consider that the significant consequential impacts to the national road are acknowledged nor addressed in the subject application and Further Information

response. TII's understanding that accommodating high voltage cable and national grid infrastructure within the strategic national road reservation, as proposed by Eirgrid in this instance, does not appear to be typical of a standard approach to the provision and management of similar strategic infrastructure elsewhere in Europe. In that regard, TII considers that the three proposed conditions outlined above provide a framework to progress the North Connacht Project complementary to safeguarding the strategic function, levels of safety and significant Exchequer investment in national roads, in accordance with the provisions of official policy. The proposed conditions also reflect that matters to be addressed are those matters that can be addressed at detailed design stage and, in TII's opinion, achieve the complementary objectives of safeguarding the strategic national road network and delivery of this national grid network development proposal.

6.0 Planning Policy Provision

6.1. The key European, national, regional and local planning policy objects as they relate to the proposed development are set out below:

6.2. European Policy

Energy Roadmap 2050

6.2.1. The Energy Roadmap 2050 was published by the European Commission in 2011 and explores the transition of the energy system in ways that would be compatible with the greenhouse gas reductions targets set out in the Renewable Energy Directive while also increasing competitiveness and security of supply. To achieve these goals, the roadmap states that significant investments need to be made in new low-carbon technologies, renewable energy, energy efficiency, and grid infrastructure. Four main routes are identified to achieve a more sustainable, competitive and secure energy system in 2050:

- Energy efficiency;
- Renewable energy;
- Nuclear energy; and
- Carbon capture and storage

The Paris Agreement, 2015

- 6.2.2. Superseding the 2005 Kyoto Protocol, the 2015 Paris addresses greenhouse gas emissions mitigation, adaptation and finance starting in the year 2020, which aims to keep the global average temperature rise this century to below two degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. One of the key achievements of COP26 in Glasgow last year (2021), was the adoption of the Glasgow Climate Pact which aims to turn the 2020s into a decade of climate action and support. For the first time, nations were also required to phase down unabated coal power and subsidies for fossil fuels. The package of decisions in the Pact also included the finalisation of the 'Paris Agreement rulebook'. This set of rules lays out how countries are held accountable for delivering on their climate action promises and self-targets under their Nationally Determined Contributions (NDCs).

6.3. Revised Renewable Energy Directive 2018/2001/EU (January 2019)

- 6.3.1. It sets out a new target for share of energy from renewable sources in the EU to at least 32% for 2030, with a review for increasing this target through legislation by 2023. A major shift within the revision is the way in which Member States will contribute to the overall EU goal. Where previously (for 2020 target) member states had an individual national binding target, the 2030 framework is solely based on an EU-level binding target of 32 per cent. It requires Member States to set national contributions to meet the binding target as part of their integrated national energy and climate plans.

6.4. European Green New Deal, 2019

- 6.4.1. In December 2019, the European Commission published a Communication on a European Green Deal (EGD), setting out its increased ambition on climate action. It presents an initial roadmap of key policies and measures needed to achieve the ambition of becoming the first climate neutral bloc in the world by 2050. This will require a transformation of the EU's economy, with sectors such as transport, buildings, agriculture, and energy production all having key roles to play. It proposes increasing the EU's emissions reduction targets for 2030 from 40% to at least 50%

and towards 55% compared with 1990 levels. In December 2020, EU leaders agreed to reduce GHG emissions by at least 55% by 2030 compared to 1990 levels.

6.5. National Policy

Climate Action Plan 2021

This plan sets out a road map for taking decisive action to halve our greenhouse gas emissions by 2030 and reach net zero emissions by 2050 in accordance with European policy objectives. The plan emphasises the need to act now to build a cleaner greener economy and society. Among the most important measures in the plan is to increase the proportion of renewable electricity, up to 80% of all electricity generation by 2030. The government seeks to annually update the new climate action plan and the road map of actions to reflect developments of the previous year so as to ensure that required emission reductions are achieved.

In line with EU targets, the Programme for Government commits to achieving a 51% reduction in Ireland's overall greenhouse gas emissions by 2030. These legally binding objectives are set out in the Climate Action and Low Carbon Development (Amendment) Act 2021. This Act established legally binding frameworks and commitments to achieve targets.

Chapter 4 of the Plan (Choosing the Pathways which Create the Least Burden and Offer the Most Opportunity for Ireland) notes that in terms of electricity generation, the proposed pathway includes a more rapid build out of renewable energy capacity (wind and solar power generation technology), increased storage and the deployment of zero emissions gas. The decarbonisation pathway for the electricity sector is seen as challenging given the rapid growth in demand for power as well as the need to ensure security of supply through the decarbonisation journey. It is estimated that between €21 and €22 billion will be required in wind and solar energy.

The plan also seeks to provide carbon budgets and sectoral emissions ceilings with 3 five-year economy wide budget programmes setting a limit for the amount of greenhouse gas emissions that can be emitted for that period. Any failure to achieve targets will be rolled on and will be required to be achieved in addition to the new targets envisaged under the next five-year plan.

Section 11 of the Plan relates to electricity generation. It notes that electricity accounted for 16.2% of Ireland's greenhouse gases in 2018. However, the share of electricity from renewable energy increased almost five-fold between 2005 and 2018 from 7.2% to 33.7%. The plan notes that there is a requirement for a significant step up in ambition and delivery in order to meet the new 2030 target. A share of 80% of renewable electricity will require a significant contribution through local community-based projects. At least 500 megawatts of renewable energy will be delivered through such local community-based projects. Action No. 100 seeks to ensure a supportive spatial planning framework for onshore renewable electricity generation development.

In the context of the proposed development, as greater volumes of intermittent renewable electricity are connected to the grid, new and extended grid infrastructure components and systems will be required in order to extend, reinforce and maximise existing transmission infrastructure capacity, maintain grid stability and increase the security and capacity of electricity flow across the country.

Policy Statement on Security of Electricity Supply, Department of the Environment, Climate and Communications. 2021

The Government recognises that:

- ensuring security of electricity supply continues to be a national priority as the electricity system decarbonises towards net zero emissions;
- there is a need for very significant investment in additional flexible conventional electricity generation, electricity grid infrastructure, interconnection and storage in order to ensure security of electricity supply
- The Government has approved that:
 - it is appropriate for additional electricity transmission and distribution grid infrastructure, electricity interconnection and electricity storage to be permitted and developed in order to support the growth of renewable energy and to support security of electricity supply;
- The challenges to ensuring security of electricity supply include:

- ensuring adequate electricity generation capacity, storage, grid infrastructure, interconnection and system services are put in place to meet demand – including at periods of peak demand;
- It is expected that the majority of renewable energy generated by 2030 will be from wind and solar. These sources of renewable energy are variable in nature and therefore will require other technologies to both support their operation and provide electricity supplies when they are not generating. This will require a combination of conventional generation (typically powered by natural gas), interconnection to other jurisdictions, demand flexibility and other technologies such as energy storage (e.g. batteries) and generation from renewable gases (e.g. biomethane and/or hydrogen produced from renewable sources).

Ireland's National Policy Statement on Electricity Interconnection (2018)

This policy statement sets out the official overall perspective on electricity interconnection in Ireland and is designed to provide high-level policy guidance to all stakeholders, in particular to the Commission for Regulation of Utilities (CRU) as it considers applications from project promoters.

National Planning Framework 2018 (Ireland 2040)

The NPF contains a number of relevant strategic outcomes and a number of national policy objectives which are relevant to the current application before the Board.

These are set out below.

New energy systems and transmission grids will be necessary for a more distributed, renewables focused energy generation system, harnessing both the considerable onshore and offshore potential for energy sources such as wind, wave and solar and connecting the richest sources of that energy to the major sources of demand.

The transition to a low carbon and climate resilient society recognises that more diversified and renewables focussed energy systems will be necessary. It aims to deliver 40% of electricity needs from renewable sources by 2020 with further increases through to 2030 and beyond in accordance with EU/National Policy.

National Strategic Outcome No.8 seeks a transition to a low carbon and climate resilient society. The national climate policy position establishes the national objective of achieving transition to a competitive, low carbon, climate resilient and environmentally sustainable economy by 2050. This objective will shape investment choices over the coming decades in line with the national mitigation plan and the national adaptation framework. New energy systems and transmission grids will be necessary for a more distributed, renewables-focused energy generation system, harnessing both the considerable onshore and offshore potential from energy sources such as wind wave and solar and connecting the richest sources of that energy to the major sources of demand.

NPO21 seeks to enhance the competitiveness of rural areas by supporting innovation and diversification of the rural economy into new sectors and services, including those addressing climate change and sustainability.

The NPF also notes that in addition to legally binding targets agreed at EU level, it is a national objective for Ireland to transition to be a competitive low carbon economy by the year 2050. This will include:

- An aggregate reduction in carbon dioxide emissions of at least 80% (compared to 1990 levels) by 2050 across the electricity generation-built environment and transport sectors, and
- In parallel, an approach to carbon neutrality in agriculture and land use sector, including forestry which is not compromising capacity for sustainable food production.

NPO54 seeks to reduce a carbon footprint by integrating climate action into the planning system in support of national targets for climate policy mitigation and adaptation objectives, as well as targets for greenhouse gas emission reductions.

NPO55 seeks to promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objective towards achieving a low carbon economy by 2050.

The proposed development will create a new circuit in the electricity transmission network in the north-west of Ireland. The new circuit will enhance the network in the area and provide capacity to connect new demands for electricity to support

economic growth in the area, and to connect new renewable generation to help with meeting Climate Action Plan targets.

National Development Plan 2021-2030

The NDP reiterates the NPF centrality of NSO 8 (Transition to a Climate-Neutral and Climate-Resilient Society) to all elements of spatial policy and reducing fossil fuel use and commits to increasing the share of renewable electricity up to 80% by 2030, as well as investment in the electricity transmission and distribution grid to strengthen the reliability of electricity supplies. The NDP identifies €9.5 billion being invested in additional carbon tax receipts, with approximately €5 billion of this being invested in energy efficiency, which is a strategic investment priority together with renewable energy, energy research and decarbonising energy. The NDP highlights the fact that “energy supply is vital for the proper functioning of society and the economy”, and that a national level priority is thus to ensure its continued supply within the overarching EU energy policy framework.

6.6. Regional Policy

The Regional Spatial and Economic Strategy (RSES) for the Northern and Western Region was adopted in January 2020. The RSES outlines ‘Five Growth Ambitions’ as part of the region’s delivery framework, which highlights the need for more strategic actions to prepare the region for future energy supply, the ability to use renewable energy, and the provision and maintenance of economic infrastructure such as energy, water and wastewater. The RSES recognises the success of the region in the provision of renewable energy.

Growth Ambition No.5 – Infrastructure. Section 8.2 specifically relates to the Electrical Grid Network. It notes that the existing transmission network is predominantly lower capacity 110 kV with very little higher capacity of 220 kV and 400 kV transmission infrastructure. Developing the grid will enable the transmission system to safely accommodate more diverse power flows from surplus regional generation and also to facilitate future growth in electricity demand. These developments will strengthen the network for all electricity users, and in doing so will improve the security and quality of supply. This is particularly important if the region

is to attract high technology industries that depend on a reliable, high-quality, electricity supply. The Border Region has significant renewable energy resources and supply exceeds demand, so there is an excess of generation in the area. Demand in the region, including the main urban centres, is expected to grow over the period of the RSES.

The need for reinforcement of the grid in the north-west is being investigated and it is predicated on the level of renewable generation in both Donegal and its hinterland in western Northern Ireland. The solutions, technology and timing of this work are currently being reviewed and is an urgent priority for the region to ensure it has sufficient capacity and resilience.

Regionally it is acknowledged that the north-west has a pivotal role in delivering a successful transition. There are rich renewable energy resources through wind, solar and wave (to mention but a few) along and throughout the region. The former has manifested itself already and wind turbines are a new feature in our landscapes. There is still significant potential for all new outputs to our grid. There are however some big challenges to overcome. There are several principles which inform national policies, and which should inform the energy infrastructure road map for the region. These include sustainability, security of supply and competitiveness.

The North Connacht Project is specifically listed in Table 11 as one of the more important pieces of infrastructure to be incorporated into the transmission network.

In terms of specific regional policy objectives, the following are worth noting:

RPO 4.18: To support the development of secure, reliable and safe supplies of renewable energy, to maximise their value, maintain the inward investment, support indigenous industry and create jobs.

RPO 8.1: The Assembly support the development of a safe, secure and reliable electricity network and the transition towards a low carbon economy centred on energy efficiency and the growth projects outlined and described in this strategy.

RPO 8.2: Support the reinforcement and strengthening of the electricity transmission network with particular reference to the regionally important projects contained within Table 11 (of the RSES).

RPO 8.3: The Assembly supports the necessary integration of the transmission network requirements to allow linkages with renewable energy proposals at all levels to the electricity transmission grid in a sustainable and timely manner.

RPO 8.4: That reinforcements and new electricity transmission infrastructure are put in place and their provision is supported, to ensure the energy needs of future population and economic expansion within designated growth areas and across the region can be delivered in a sustainable and timely manner and that capacity is available at local and regional scale to meet future needs. Ensure that development minimises impacts on designated areas.

6.7. Local Policy

Mayo County Development Plan 2022- 2028

Chapter 11 relates to Climate Action and Renewable energy. The strategic aim of this chapter is to transition to a low carbon and climate resilient county, with an emphasis on reduction in energy demand and greenhouse gas emissions, through a combination of effective mitigation and adaptation responses to climate change; in addition to maximising the opportunities to become a national leader in renewable energy generation, whilst increasing the resilience of our Natural and Cultural Capital to climate change by planning and implementing appropriate adaptation measures.

The plan notes that Mayo has an enormous wind resource with the potential to underpin an entire new economy in the county. The county generates 266MW (Q1 2020) from 15 wind farms, which is approximately 6% of Ireland's overall wind energy production. The development of the extant permissions for wind and solar energy projects in the county will significantly add to Mayo's renewable energy output. In setting a realistic deliverable target for a county with a high wind potential like Mayo, a minimum target of 600MW over the plan period is considered achievable. The Mayo Renewable Energy Strategy (RES) 2011-2020 outlines the potential for County Mayo and how it can capitalise on a range of renewable resources, including onshore and offshore wind, wave and tidal energy, solar and other renewable energy forms.

Section 7.4.5 of the plan relates to energy networks infrastructure. It notes that the supply and distribution of electricity and gas throughout County Mayo is an important factor in the provision and location of employment and the creation of sustainable communities. Mayo County Council will continue to work alongside key energy providers in facilitating the future development of networks throughout the county. The Council is also cognisant of national policy, which seeks to promote renewable energy use and generation at appropriate locations within the built and natural environment, to meet national objectives towards achieving a low carbon economy by 2050.

EirGrid is responsible for power across the electricity transmission grid, ensuring a safe, secure and reliable supply of electricity to homes, businesses and industry across the country, while ESB networks are responsible for carrying out maintenance, repairs and construction on the grid. Mayo County Development Plan 2022-2028 notes that EirGrid has replaced the Grid West project with the North Connacht 110kV project, which will begin at the Moy substation near Ballina and end at Tonroe, Ballaghaderreen. The upgrading of the transmission network will facilitate power flows from both renewable and conventional sources to maximise the use of existing power corridors. In connecting renewable energy from the north west to the grid, this new project will reinforce the electricity network, supporting Mayo County Council's aim to enhance the attractiveness of the county as a place in which to live, work and invest.

Roscommon County Development Plan 2022-2028

The Roscommon County Development Plan Renewable Energy Strategy (RES) accompanies the County Development Plan. "The primary aim of the RES is to ensure that County Roscommon continues to address climate change through facilitating appropriately located renewable energy developments...". The strategic aims of the RES are reflected as policy objectives within the County Development Plan. The following policies and objectives within the County Development Plan which relate to the electricity and transmission system are considered of relevance to the proposed development: It is a policy objective of Roscommon County Council to:

CAEE 8.3 Support developments and actions that assist in achieving the national targets for energy from renewable energy, from renewable resources and reducing greenhouse gas emissions associated with energy production.

CAEE 8.6 seeks to facilitate proposals for energy storage systems and infrastructure, which support energy efficiency and reusable energy systems, provided such proposals accord with the principles of proper planning and sustainable development of the area

CAEE 8.9 Work in collaboration with EirGrid and other service providers and statutory bodies to facilitate a modern electricity network within the county, in line with recognised best practice. The Council will require comprehensive studies to be undertaken for all technical and environmental considerations, to inform the assessment of proposed transmission routes.

6.8. Local Area Plans

There are also a number of policies and objectives contained in local area plans that are relevant to the current proposal before the Board. These include Objective IS1 of the Ballina and Environs Development Plan 2009-2015 (as varied and extended), which seeks to assist the electricity infrastructure provider in the installation of necessary infrastructure. The Swinford Area Plan does not include any specific electricity infrastructure policies or objectives.

The existing Tonroe substation is located outside the plan boundary for Ballaghaderreen Local Area Plan 2017-2023. Notwithstanding this, the plan states that the *“Council recognises that the development of secure and reliable electricity transmission infrastructure is a key factor for supporting economic development and attracting investment to the area”*. Furthermore, Objective 31 seeks to *“co-operate and liaise with statutory and non-statutory providers in order to facilitate energy infrastructure provision, including the development of renewable energy sources at suitable locations”*.

7.0 EIAR Assessment

- 7.1.1. The proposed development is not a class of development that falls with the definitions of either Part 1 or Part 2 or part 2 of schedule 5 of the Planning and Development Regulations. As it is not a class of development for which EIA applies the sub-threshold criteria set out under Schedule 7 would not apply either in this instance.
- 7.1.2. Notwithstanding the above, a Planning and Environmental Considerations Report was submitted with the application. This report assesses the proposed development under the environmental factors listed in Article 3 of the Directive. The Report assesses in detail the impact of the proposed development on:
- Population and Human Health
 - Air Quality and Climate
 - Noise and Vibration
 - Biodiversity
 - Land Soils and Hydrogeology
 - Surface Water (including flood risk)
 - Archaeology and Cultural Heritage
 - Roads and Traffic
 - Material Assets
 - The Landscape.

It also sets of details of the monitoring and mitigation measures to be employed to alleviate any potential impacts of the development on the receiving environment.

Each of the chapters contained report set out the methodology employed in the assessment of the environmental factors referred to. The report also assess the proposal in terms of both construction and operational impacts. Potential cumulative effects are also assessed, as are the residual impacts. The report also details mitigation measures to be employed and details the monitoring to be undertaken. While an EIAR, either mandatory or sub-threshold is not required under the legislation for the proposed development, the level of detail and methodology

employed in the Planning and Environmental Considerations Report (PECR) provides a similar level of detailed assessment that could be expected to be contained in an EIAR.

While it is not proposed to evaluate or assess the information contained in the Planning and Environmental Considerations Report, (PECR) to the same extent to that which a Competent Authority is required to assess a statutory EIAR, where appropriate the contents of the PECR will be analysed and evaluated in my assessment below.

8.0 Assessment

8.1. Introduction

8.1.1. I have read the entire contents of the file, visited the route of the proposed UGC including the proposed alignment along the national and non-national sections of the route. I have also had regard to the particular concerns raised by Transport Infrastructure Ireland and the concerns raised by Irish Water and the impact of the proposed development on the proper planning and sustainable development of the area. I consider the critical issues in determining the current application before the Board are as follows:

- Principle of development and compliance with national strategic objectives.
- Identification of route options and the extent to which the impact national road network fed into the route options.
- Road Safety Issues on National and non-national routes.
- Maintenance, reinstatement and road repair issues.
- The potential for adverse impact on future strategic road alignments.
- Impact on other utilities infrastructure within the existing road network.
- Derating or reduction in the carrying capacity of the cable.
- Compliance with TEN-T Regulations.
- Other planning and amenity issues.

8.2. Principle of development and compliance with national strategic objectives.

- 8.2.1. The current level of renewable energy generation in the North Connacht Region, is considerably in excess of the carrying capacity of the network, according to the information submitted with the application and this point is also acknowledged in the local and regional strategies referred to in the previous section above. The proposed development is needed in order to facilitate the connection of renewable energy from existing wind farms from the North Connacht Region into the national electricity grid. The grid therefore must be developed and upgraded to cater for the extra energy generated in the northwestern region.
- 8.2.2. The proposed development will create a new circuit of electricity transmission networks and will enhance the network of the area and provide capacity to connect the new demand for electricity so as to support economic growth in the area. The increased capacity to facilitate the connection and transfer of renewable energy production will help meet the targets set out in the various plans referred to above including the National Climate Action Plan.
- 8.2.3. Furthermore, in the longer term the UGC solution that is proposal in this instance can be designed to facilitate a higher capacity should this be required for example upgrading the 110kV cable with a 220kV cable.
- 8.2.4. The requirement to provide such infrastructure has become more acute with the recent geopolitical events in Ukraine and Russia which has exacerbated the requirement to reduce dependence on fossil fuels to an ever greater extent and the need to expedite the switch to renewable energy. The provision therefore of critical infrastructure to facilitate the transmission of such energy becomes all the more important.
- 8.2.5. The proposal also accords with and supports numerous policy statements referred to in the previous section of the report above. Specifically, I would make reference to Chapter 4 of the National Climate Action Plan which notes that in terms of electricity generation, the proposed pathway includes a more rapid build out of renewable energy capacity (wind and solar power generation technology). Furthermore, the Action Plan notes that, as greater volumes of intermittent renewable electricity are connected to the grid, new and extended grid infrastructure components and systems will be required in order to extend, reinforce and maximise existing

transmission infrastructure capacity, maintain grid stability and increase the security and capacity of electricity flow across the country. The new circuit will enhance the network in the area and provide capacity to connect new demands for electricity to support economic growth, and to connect new renewable generation to help with meeting Climate Action Plan targets.

8.2.6. National Strategic Outcome No.8 of the NPF highlights that new energy systems and transmission grids will be necessary for a more evenly distributed, renewables-focused energy generation system, harnessing both the considerable onshore and offshore potential from energy sources such as wind wave and solar and connecting the richest sources of that energy to the major sources of demand. Again, the proposal will assist in the realising this goal.

8.2.7. The RSES is more prescriptive again. In Policy objectives RPO 8.1 to 8.4, all of which acknowledge the need for supporting infrastructure in order to ensure safe, secure and reliable electricity network. The North Connacht Project is specifically referred to in the Table 11 of the strategy as an identified infrastructure project in order to fulfil policy objectives RPO 8.1 to 8.4.

8.2.8. The Mayo County Development Plan highlights the need to facilitate the supply and distribution of electricity and gas throughout County Mayo and this is an important factor in the provision and location of employment and the creation of sustainable communities. The Development plan notes that Mayo County Council will continue to work alongside key energy providers in facilitating the future development of networks throughout the county.

8.2.9. While Roscommon County Council in its policy objective entitled CAEE 8.9, will endeavour to work in collaboration with EirGrid and other service providers and statutory bodies to facilitate a modern electricity network within the county, in line with recognised best practice.

8.2.10. It is clear and unequivocal therefore that both national, regional and local policy fully support the provision of such infrastructure subject to appropriate qualitative safeguards and that such infrastructure is provided in accordance with the proper planning and sustainable development of the area. I further note that neither Transport Infrastructure Ireland nor Irish Water object to the proposed development in principle. They fully recognise the importance of providing such infrastructure but

argue that providing such infrastructure should not be at the expense of or compromise national strategic road infrastructure are any other utilities such as water and wastewater infrastructure which is currently in situ.

8.2.11. Thus, having regard to the acceptability of the proposed development in principle there is a need to identify mechanisms to ensure that the proposed Eirgrid project can proceed in a complementary fashion to enable the continuing operational efficiency off the road network, particularly the strategic national road network and safeguarding existing utilities in the ground. These issues will be assessed in more detail in the sections below.

8.3. Identification of route options and the extent to which the impact national road network fed into the route options.

8.3.1. Details of the options and alternatives considered in the route alignment for the UGC and the Overhead line options were considered in the Step 4A report, contained in Appendix 4 of the PECR. It notes that studies carried out by Eirgrid previously, identified the best performing beginning and end points for the upgrade of the transmission network were the Ballina and Tonroe Substations. It appears from the report submitted that, were Eirgrid to pursue the UGC option, the placing of such cabling in the existing road network was/is a given. Section 3.2.2 of the Step 4A report states that 'where possible the ducts are usually installed in roadways or along road margins'.

Section 6 of the report provides further details on the mapping and constraints identified in the route selection process. It is quite clear, and reasonable in my view that the mapping of constraints exercise undertaken by Eirgrid incorporated and evaluated a wide array of constraints including:

- Technical (system reliability and failure rates)
- Deliverability (including acquiring appropriate permits and wayleaves etc).
- Economic constraints (costs)
- Environmental constrains (land use, environmental, ecological visual etc)
- Socio-economic constraints this included an assessment of material assets including transmission and road networks including traffic and transport considerations.

- 8.3.2. Thus, to suggest that the that traffic and transport considerations did not feature in the identification and mapping of constraints would appear to be incorrect. It was one of many considerations what were taken into account in identifying the most suitable option. However, it would be also correct to assume that it may not have been given due or sufficient weighting in terms of the potential impacts it could have on the strategic road corridors within the region. In terms of areas of opportunity, I can fully identify with fact that placing the UGC within existing road corridors would score favourably in terms of reducing potential impacts on ecology and biodiversity in the area. This is a very important consideration, particularly in the context of the requirements under the Habitats Directive. Placing the infrastructure within the confines of an existing road alignment would have a negligible impact on European Sites, of which there are a high density of such designations along the potential route alignment options affected by such a designation. Were off-road alternatives pursued that would bring the project into contact with such areas, the Board, if it was not satisfied beyond reasonable scientific doubt as to the proposals potential impact, would be precluded from granting planning permission.
- 8.3.3. Therefore, the applicant's conclusion that the Multi-Criteria Analysis (MCA) approach incorporates a balanced consideration of a multiplicity of technical, economic, environmental, social and deliverable considerations is in my view a reasonable and appropriate response to the concerns raised by TII, that the strategic impact on the national road network was not given the primary consideration it deserves. It should also be borne in mind that any impact on the national road network, will for the most part be confined to the construction stages and will, at any one time, be confined to a small section of the route in which the cable is being laid. While there may also be some maintenance issues during the operational life of the transmission, such works will be infrequent and will be temporary and must be viewed in the context of other maintenance works associated with the strategic road network which are consistently required from time to time, such as the construction /repair of crash barriers, signage junction improvements/ road widening measures etc.
- 8.3.4. Finally in relation to this matter the applicant has, on foot of the further information request, produced a detailed Road Safety Impact Assessment, A traffic Management Plan which is set out in S14.8.1 and Appendix 6.1 of the PECR. Furthermore the applicant has also produced a CEMP, which is also set out in Appendix 6.1 of the

PECR. The totality of these documents assess the impacts of the proposed development on the operational safety of the road network and indicate that the works to be undertaken can ensure that the road network can operate in a safe manner while construction works in laying the UGC takes place. The issue of road safety is dealt with in more detail below.

8.4. Road Safety Issues on national and non-national routes.

- 8.4.1. While the applicant argues that the provisions of the Safety Management Directive (EU) 2019/1936 was not enacted at the time the applicant was identifying route considerations¹, this does not absolve the applicant from taking the legislation into consideration as it was in place at the time the application was lodged. The Board will be fully aware that in the case of the Galway Bypass, its decision to grant was quashed on the basis that the Climate Action Plan (2021) had been adopted four days prior to decision, and the CAP had had not been taken into consideration by the Board in issuing its decision. Regardless of when the route identification was undertaken, the legislation was in place at the time the application was lodged, and when the Board will determine the application and as such must be taken into consideration when determining the application.
- 8.4.2. This issue is a moot point as the applicant submitted a detailed road safety assessment with the further information submission. It provides details of the existing road network and route profiles, existing traffic flows, seasonal and climatic conditions and existing road safety issues.

A detailed traffic management plan has also been prepared (See appendix 6.1 of PECR). It provides details of the construction programme including details of construction access and potential impacts on the public road network. A series of measures are to be implemented to maximise safety and minimise traffic impacts. This includes:

- Time controls for deliveries of materials

¹ The Statutory Instrument was published in November 2021, while the application was lodged on June 1st 2022.

- The provision of temporary passing bays, diversion routes and localised traffic management plans.
- Agreed transportation protocols with relevant authorities.
- Speed restriction and temporary management
- Provision of adequate signage
- Details of construction parking arrangements
- Appropriate communication and liaison and coordination with public and local authorities in implementing all measures.

8.4.3. It would in my considered opinion be disproportionate for the Board to refuse approval for the proposed project on traffic disruption grounds. While the proposed development will give rise to disruption and, if not properly managed, could potentially give rise to road safety considerations, the construction impact will be temporary in nature and will only affect a short section of a roadway (be it a national road or otherwise) at any given time. The proposed construction works will proceed progressively, section by section, thereby giving rise to traffic disruption over a short segment off the roadway at any given time.

8.4.4. In terms of traffic safety, I am satisfied that appropriate protocols and road safety measures can be put in place to ensure that any potential road safety implications can be appropriately identified and addressed. It is a very common occurrence that construction works take place on the national road network, with the incorporation of 'stop & go' temporary traffic light systems due to road widening schemes, junction improvements, improvements in road alignments and the creation of grade separated junctions etc. These works are also temporary in nature and do not impede the long-term operation of the road from a safety perspective. Furthermore, any short-term traffic disruption caused by the proposed construction works must be balanced against the need to augment and secure the energy transition grid that will accrue from the North Connacht Project which is identified as an important infrastructure project in respect of renewable energy provision. Road safety concerns in my view should not present a significant obstacle to the progression of the project in question.

8.5. Maintenance, reinstatement and road repair issues

- 8.5.1. Details of typical cross sections of the 110KV cable trench are set out in figure 6.2 of the PECR and in the applicant's further information submission. The reinstatement, road surfacing, subbase, capping layers and any geotextiles strengthening layers will be as per the TII specification "*Requirements for the of Openings in National Roads CC-PAV-04007*".
- 8.5.2. TII in its last submission, suggested that a number of conditions be attached if the Board are minded to grant planning permission for the proposal. These conditions included the following:
- 8.5.3. *Where it is proposed to lay high voltage cabling within the national road reservation as detailed in the application drawings, all cabling shall be laid outside paved areas of the national road. In the event that cable laying must occur in the national road pavement, due to the absence of available non-paved areas, verge space or other adjacent lands, appropriate plans and details shall be agreed with the relevant roads authority in collaboration with TII in advance of any construction*'.
- 8.5.4. Having inspected the drawings submitted with the application, which are at a relatively large scale 1:2,500 (which is reasonable given the length of the overall proposal) it is not possible to determine with any great degree of accuracy where the cable can be placed off the metaled carriageway, and where it is necessitated to be placed within the carriageway. However, having inspected the entire route, there will be scope to incorporate certain sections of the cabling off road and within the hard shoulder of the national primary road network, particularly along the N5, but less so along the N26. Where it will be necessary to place the cabling within the metalled section of the roadway, it is reiterated that any reinstatement will be done in accordance with TII specifications. TII have appeared to have tacitly accepted that where such a scenario arises where no alternative exists other than laying cable within the metaled carriageway '*appropriate plans and details shall be agreed with the relevant roads authority in collaboration with TII in advance of any construction*'. This suggests that that all parties agree that the issue can be resolved by way of detailed condition.
- 8.5.5. I am satisfied therefore that the issue of road re-instatement and repair can be undertaken in accordance with TII specifications and requirements to ensure that the

structural integrity of the road is not compromised, and that the development could proceed on the basis that the detailed specifications can be agreed between the parties concerned by way of condition.

- 8.5.6. Finally, I would refer the Board to photograph 21 of the photographs attached to this report. It clearly shows reinstatement works carried out on the N26 which traverse the entire width of the carriageway. This suggests that UCG works have heretofore been carried out under the auspices of and approval of the National Road Agency². This demonstrates a relevant precedent that is pertinent to the current issue being considered and suggests that where reinstatement works are carried out to TII specifications it will not result in any long-term structural deficiency in the integrity of the carriageway.

8.6. **The potential for adverse impact on future strategic road alignments**

- 8.6.1. As already mentioned previously in this report, the strengthening and augmentation of the energy transmission grid is of fundamental importance and key component of Ireland's renewable energy strategy. The large amount of electricity generated by wind farms in the North Connacht Region will continue to increase over the coming years. The level of planned renewable energy generation in the Connacht region is significantly greater than the capacity of the existing electricity network. There is a requirement therefore to improve electricity transmission in the region, particularly in the context of Ireland's commitments to decarbonisation to address global warming and climate change. This project in itself is therefore of fundamental importance in delivering such key energy infrastructure in the short-term and should be assessed in this context.
- 8.6.2. It appears from the information contained on file, and information contained on the Mayo Co Council Website (circa September 2022) that the Ballina By-pass project is currently at Phase 2: Stage 2 (Options Selection) of the TII Project Management Guidelines. Stage 1 of the options selection process commenced with the establishment of the Study Area for the scheme, initial identification of constraints within the Study Area and the development of initial options. Six initial options were developed following on from the Constraints Study. All of these options were

² Perhaps the NRA as opposed to the TII

assessed under three criteria, Engineering, Environment and Economy. The Agency have now shortlisted four options for the proposed scheme. The shortlisted options will be carried forward to Phase 2: Stage 2 (Project Appraisal Matrix) and assessed in greater detail in the coming months. Following the Option Selection Phase, the scheme will then be progressed through Preliminary Design, Environmental Impact Assessment, CPO, Planning and the Statutory Processes, subject to the availability of funding. It is anticipated that that, all going to plan, an application may be ready to be submitted to the Board in approximately 2 years' time.

- 8.6.3. As it stands therefore, there is no exact technical or other information that might inform Eirgrid of the exact alignment of the route. Furthermore, details in relation to whether or not capital funding for the project is available is not altogether clear from the information available.
- 8.6.4. It is apparent therefore, that the Eirgrid North Connacht Project is considerably ahead of the Ballina N59/N26 by-pass in terms of timelines. Having regard to the importance of the project in terms of delivering much needed energy transmission infrastructure, it would in my view be inappropriate if not somewhat negligent to delay the Eirgrid project until such time as the preferred option for the Ballina N59/N26 by-pass is finalised or indeed permitted to proceed.
- 8.6.5. I would agree with the applicant in the further information submission that the most practical solution in respect of this matter is to ensure that ongoing consultation, engagement and collaboration between Eirgrid and TII continue to take place as both projects progress so as to ensure that as far as practical both projects harmonise and dove-tail in terms of delivery. I note that there is a protocol in place between the representatives of TII, ESB and Eirgrid (details of which are attached to the Eirgrid's FI response) to allow and encourage such consultation to take place.
- 8.6.6. To refuse planning permission on the basis that the proposed development is deemed to be premature pending the adoption of the preferred route for the Ballina by-pass would in itself delay critical renewable energy infrastructure which could undermine the achievement of the various targets in respect of renewable energy production and transmission. For this reason I do not consider it appropriate to refuse planning approval on the basis of prematurity pending agreement of the alignment of the Ballina By-pass.

8.7. Impact on other utilities infrastructure within the existing road network.

- 8.7.1. Concern was expressed in the submissions of Irish Water and TII that the proposed UGC could possibly compromise access to or indeed the integrity of other underground utilities such as road drainage, pipes and culverts etc. In the case of Irish Water utilities, there are 14 location points where it is proposed to cross above Irish Water assets and that insufficient details have been provided to Irish Water for these 14 location points to allow Irish Water to be satisfied that the potential adverse impacts to public infrastructure can be adequately mitigated and appropriate separation distances can be achieved. In the further information submitted by Eirgrid, it is stated that the applicant is satisfied that it can comply with any requirements set out by Irish Water by way of conditions of approval relating to post consent agreement on matters of detailed design and methodology. Eirgrid have standard requisite distances for crossing above and below third party services. It accepts that instances may arise of a technical or engineering nature with regard to the cable crossing of Irish water assets. It is suggested that these matters are best addressed as part of a post consent engagement between the developer and Irish Water and the relevant planning authority. Eirgrid is willing to abide by any such condition.
- 8.7.2. Irish Water in its response upon reviewing the applicant's submission, and in particular, Drawing No. XDC-CBL-STND-H-002 Sheet 002, (which allows for a 300mm separation distance between the top of the existing culvert and the duct accommodating the proposed cable) is of the opinion that these drawings do not fully address the requirements above. Notwithstanding this, Irish Water acknowledge that these issues can be adequately addressed as part of post-consent engagement or agreement through detailed design. Therefore, based on the information available, Irish Water is of the opinion that many of the interactions could be supported subject to a detailed design being agreed with Irish Water in advance of any works.
- 8.7.3. Likewise TII, while not explicitly expressing satisfaction with the further information submission regarding the ability of the proposed UGC to compromise or adversely impact upon existing utilities within the roadway, it does acknowledge that in collaboration with TII and the relevant local authorities, in advance of any construction, details can be agreed to ensure avoidance of national road infrastructure, including structures, associated embankments, drainage,

communications, etc. and this is reflected in the final suggested condition which TII request be attached in the event that the Board consider it appropriate to grant planning permission.

8.7.4. While this issue is of a technical nature, it appears from the correspondence on file that the parties are agreed that appropriate allowances can be made which would be subject to detailed agreement so as to ensure the spatial compatibility in respect of existing utilities, pipes and culverts and the proposed UGC. The Board therefore can in my opinion appropriate address this issue by way of condition.

8.8. Derating or reduction in the carrying capacity of the cable as a result of pavement overlays and upkeep.

8.8.1. The applicant in response to this issue indicated that an additional depth of 350 mm overlay can be added without derating the cables below the target ratings of the circuit. This includes trefoil cable over lapping formation which is the worst-case scenario. In the unlikely event that the proposed overlay will be higher than the acceptable overlay, the Transmission System Operator (Eirgrid) and the Transmission Asset Owner (ESBN) will need to be informed. A technical working group will be formed to review the proposed overlay to understand if there will be a derating or reduction in the carrying capacity of the underlaid cable. The protocol agreed between the parties concerned will ensure the early identification of potential conflicts and any alterations to existing transmission circuits, this includes any alterations to the vertical and horizontal alignment of the road should they be required on the national roads.

8.8.2. It is apparent therefore that significant alterations to the horizontal alignment can take place in terms of additional overlay without impacting on the carrying capacity of the cable. Furthermore, a protocol is in place so that any potential adverse impacts can be addressed between the parties should such issues arise. I am satisfied therefore this this does not constitute a significant issue and would not be material in adjudicating on the application for approval.

8.9. Compliance with TEN-T Regulations.

8.9.1. Concern was expressed in the TII submission that the application submitted by Eirgrid was not fully cognisant of the obligations on member states to fully abide by the requirements TEN-T Regulations and in particular that

- The safety of road transport infrastructure is ensured.
- Roads are designed built or upgraded to the highest level of road safety and the implementation of latest technologies.
- The roads are designed and built or upgraded with the highest level of environmental protection in mind.

8.9.2. While this concern was raised by the TII, it is my considered opinion that the obligations in respect of the TEN-T Regulations are primarily a matter for the TII as it relates to the upgrading and realignments of the national road network as a whole. Eirgrid are not involved in the implementation of such strategic transport matters. As already stated previously in this assessment, the proposal will have no long-term adverse impact on the operational capacity of the road provided, and as stipulated by Eirgrid, all reinstatement works will be carried out in accordance with the TII specification "*Requirements for the of Openings in National Roads CC-PAV-04007*". This should ensure that the structural integrity of the road is maintained and that all operational and safety aspects of the associated with the carrying capacity of the N5 and/or the N26 are in no way compromised by the laying of the UGC.

8.9.3. There will be evitable traffic disruption which in turn could have road safety implications during the laying of the cable and in particular the construction of the joint bays. It is however reiterated that these impacts at any given time will only affect a short section of the roadway and will be temporary in nature. Furthermore, there are protocols in place for works to be carried out on national routes for maintenance and improvement purposes on a regular basis. It is suggested that such protocols can be adopted and modified where appropriate, and in the case of the current application, be implemented in accordance with the provisions set out in the CEMP, the RSIA and TMA submitted with the application.

8.9.4. With regard to environmental considerations, it is apparent that the laying of an UGC within the confines of a metaled carriageway or adjacent to a carriageway already in existence, is likely to have a lesser environmental impact that re-routing the UGC

through virgin agricultural land which in some cases may be closer to designated areas, which in turn could have greater adverse environmental implications. The Board will note that the mapping and constraints assessment undertaken by the applicant in the route selection options considered environmental factors.

- 8.9.5. Issues in relation to latest technologies in relation to road safety during the construction phase can be agreed as part of the detailed considerations to be agreed between the Eirgrid, TII and the local authorities during the construction phase of the scheme. This, it is respectfully suggested can be most appropriately addressed by way of condition.

8.10. Current Scheme v The Celtic Interconnector Scheme

- 8.10.1. Eirgrid in its response to the further information request suggested that a precedent for works of this nature and its implications on the national primary route network has already been established with the grant of planning permission issued by An Bord Pleanála under Eirgrid's Interconnector Project (ABP Ref. 310798). This involved the laying of UGC along sections of the N25 between Youghal and Middleton. In response, TII argue that the Board should be aware that there is a fundamental difference between the section of the N5 National Primary Route utilised for the North Connacht Project and N25 used for the Celtic Interconnector. In the opinion of TII, the North Connacht Project is not of the same strategic importance as the Celtic Interconnector. The latter was specifically identified as a national investment objective in the NDP, the same cannot be said of the North Connacht Project.
- 8.10.2. While it is acknowledged that the Celtic Interconnector Project may be of greater national importance than the North Connacht Project, the current project before the Board is nonetheless a critically important infrastructural project which will considerably assist in facilitating increase levels of renewable energy to be developed in the north-west of the country and transferring this energy to areas where a higher demand exists. The provision of such infrastructure in the context of climate change and international energy supply issues is, in my considered view, as equally important to maintaining the carrying capacity of the national road network. In this regard I do not consider that the Board attach less weight to the project before it, in the trade off between delivering such infrastructure and disrupting traffic and impinging on the carrying capacity of the national road network during the

construction phase. While to project before the Board may not be as nationally prominent or important as the Celtic Interconnector Project, it is in itself a critically important project required to be delivered in the short term in accordance with specific regional and local policy objectives.

8.11. Other issues

8.11.1. Amenity and environmental issues associated with the proposed development were not specifically raised in the various submissions received from prescribed bodies. However, in the interests of providing the Board with a comprehensive and robust assessment of the entirety of the proposal; an assessment of the wider amenity issues associated with the project are briefly presented below. A separate assessment of the potential of the proposed development to impact on designated European sites is contained under a separate heading - Appropriate Assessment below.

Noise Impacts

8.11.2. The major impact arising from noise will obviously arise during the construction phase when trenches are being excavated and the cables are being laid. Noise can also arise from activities taking place in the construction compounds. Some additional noise can also be expected from the construction of the extension to the sub-stations. In the PECR, a detailed baseline noise survey in respect of the existing environment and noise sensitive locations located along the route was undertaken. Existing noise levels at the nearest noise sensitive locations ranged between 48 and 76 dB(A) L_{Aeq} . It is anticipated that the construction of trenches, lay down areas and passing bays will affect the baseline noise environment and receptors adjacent to the cable route. It should be noted that such receptors, particularly in proximity to the national road network, would currently experience relatively elevated ambient noise levels. The PECR states that best practical mitigation measures will be employed during the construction, in order to minimise noise propagation.

Works within the two substations which will involve the provision of additional substation infrastructure will also give rise to some elevated noise during the construction phase however there are no significant noise receptors in the immediate vicinity of these substations and therefore the anticipated noise impact is considered

to be not significant and will be temporary in nature. The horizontal directional drilling he undertaken likewise is not considered to result in significant noise generation. The horizontal directional drilling compound is located in close proximity to one noise sensitive receptor (NSL 18) and this could have adverse impacts, however these impacts are will be temporary, and should not in my view be considered fatal to the overall application. In the case of construction traffic, again any elevated noise impacts I consider to be short duration and will not result in any discernible are significant impacts on sensitive receptors.

8.11.3. The underground cable will not give rise to any noise impacts during the operational phase. The provision of additional plant and equipment at the Moy and Tonroe substations will result in some additional noise generation. This in the absence of mitigation could result in an increase in noise levels under worst case scenario of between 3 and 9 dB(A) L_{A90} . However a series of mitigation measures are set out in the PECR and the CEMP, which include the managing of the timing activities so as the noise emitted works are conducted during daytime only. If on occasion works are required such that noise emitting activities are to be undertaken in the evening or at night, prior notification to nearby dwellings will take place. Given the low frequency and total noise characteristics of the electrical equipment and the low noise specification which will be incorporated into the procured equipment no significant noise impacts are anticipated during the operational phase. Therefore it is not anticipated that that the additional electrical equipment to be provided will give rise to perceptible noise levels over and above the low frequency noise propagation associated with the existing substations.

8.11.4. Similarly no discernible impacts in terms of vibration are anticipated during the construction or operational phase.

Biodiversity Issues

8.11.5. Issues in relation to the impact of the proposal on designated European sites are dealt with separately in the subsequent section on AA below. I note the PECR submitted with the application provides details of habitat and species surveys that were carried out throughout the year in 2021. These included bird and bat surveys, aquatic surveys, other protected species surveys and biosecurity surveys. Desktop studies which were undertaken as part of the assessment are also set out. No

habitats of note were recorded along the route of the proposed cable or within the zone of influence of the proposed cable.

8.11.6. Details of bird surveys including bird species recorded within 10 Km grid overlapping the proposed route these details are set out in Table 10-7 of the planning and environmental considerations report. Specific areas along the route which have the potential to host flora of note were also examined. This exercise concluded that given the nature of the habitats within the zone of influence of the proposed development it is considered that any species of note are unlikely to occur within the works area. The only exception to this being the Black Bog Rush. This species occurs locally within the zone of influence. Any areas where this habitat is disturbed during construction will be appropriately reinstated. Details of all terrestrial mammals occurring within the vicinity of the site are set out in Table 10-10. Detailed habitat sites along the footprint of the proposed development are set out in Table 10-17 and the subsequent pages of the PECR where each of the habitats are described in detail. The potential impacts of the proposed development for both the construction and operational phase are set out in Tables 10-24 to 10-28. The Tables assess the impacts on:

- Mammals (including otters, badgers, bats and other mammals) where the impacts are largely described in the absence of mitigation as ranging from short term slight impact to short term moderate impact.
- Impacts on water courses are also described in the absence of mitigation as ranging from short term slight impact to short term moderate impact. The only exception to this being the potential impact on the white clawed crayfish Where in the absence of mitigation measures there is a potential for a long-term significant impact on a county geographical scale.
- The only exception to this being the potential impact on the white clawed crayfish Where in the absence of mitigation measures there is a potential for a long-term significant impact on a county geographical scale.
- The impacts on birds (both wintering and breeding) range from slight short term negative effect to imperceptible effect, in the absence of mitigation.
- Impacts on amphibian reptile and invertebrate species are on the whole considered to be a slight temporary negative effect within the local geographic

area. During the operational phase there is no potential significant adverse effects on biodiversity receptors.

8.11.7. Section 10.9 of the PECR set out a host of mitigation measures to offset any potential adverse impacts on biodiversity. These include:

- the employment of an ecological clerk of works
- an independent clerk of works
- the provision of appropriate landscaping and reinstatement
- a host of mitigation measures for the protection of notable habitats along the route
- mitigation measures for the protection of water courses
- mitigation measures for the protection of breeding birds
- mitigation measures for the protection of wintering birds
- mitigation measures for the protection of amphibians crayfish and the prevention of the spread of invasive species.

8.11.8. All these mitigation measures will be the subject of strict monitoring during the operation phase. Compensatory measures will also be provided in the forms of hedgerows and wooded habitat replacement.

8.11.9. Having regard to the detailed information contained in the PECR in respect of habitat and biodiversity issues together with the relatively low ecological/biodiversity importance of the receiving habitat within the vicinity UGC, it is considered that the proposed north Connacht Project, will have an acceptable impact on the biodiversity of the area. Furthermore, any impact will mainly arise during the construction phase which would be of a temporary nature and will allow reinstatement and recolonisation of the natural habitat to take place overtime. Thus, the long-term impacts of the proposal will in my view be negligible. The incorporation of comprehensive mitigation measures will further minimise any potential adverse impacts. I am satisfied therefore based on the information supplied with the application including the detailed desktop and field surveys undertaken that the proposed development will have an acceptable impact on biodiversity.

Flood Risk Assessment

- 8.11.10. Due to the overall length of the proposal, the development could potentially be at risk of flooding primarily through fluvial or surface water flooding. One section of the route is identified in the PECR as being susceptible to flooding from the Yellow River near Foxford to the Callow Lakes (Upper and Lower)³. OPW flood maps would corroborate this conclusion. All other areas along the course are not identified as being at risk of flooding.
- 8.11.11. Any potential flood impacts arising from watercourse crossings has been mitigated by using horizontal directional drilling. During construction, flood risk will be managed by maintaining the water course flow through pumping or temporary diversion.
- 8.11.12. The cable roof will be designed so as not to be vulnerable to flooding and this will include the avoidance of flood zones A&B where possible. The underground cable is designed so as to be floodable without affecting its operation. All joint bays would it be watertight to avoid any water inundation during a groundwater or other flooding event. Link boxes have been designed to avoid flood zones A and B and will be subject to detailed design to ensure they are above flood zone B level. The extension to the Tonroe substation station could also be at risk from flooding during a 20% AEP flood event. Hydraulic modeling undertaken indicates that the existing substation could flood to a depth of approximately 0.3m but will drain away following the flood event.
- 8.11.13. To manage the flood risk and pass the development management justification test the following measures are proposed:
- To allow the site to flood in a 0.1%AEP flood event plus an allowance for climate change while ensuring that all equipment continues to operate.
 - The level of proposed equipment vulnerable to flooding will be designed to be above the predicted flood level plus 0.3m. Hydraulic modeling indicates that flood flows will be of short duration and access will always be maintained to the substation our construction compound through the use of a 4x4 vehicle.

³ Section MT06 to MT07 as indicated in appendix 1 of the PECR entitled 'UGC Route Mapping'

- Risk elsewhere is predicted to be reduced as demonstrated in the hydraulic modelling attached as Appendix 12.1 of the PECR.

8.11.14. Having regard to the flood risk assessment carried out in the PECR, and the detail of hydraulic modeling undertaken for the Tonroe substation, I am satisfied but the proposed development will not experience significant adverse impacts in terms of flooding and furthermore will not result in the displacement of floodwaters to adjoining lands to the extent that it would cause a significant flood risk. It is not proposed to alter ground levels to any significant extent which would result in displacement of floodwaters to adjoining lands. I am satisfied that all utilities, plant and equipment associated with the substation extensions would be located above the maximum flood extent and therefore will not be adversely affected by any flood event. All cabling and associated infrastructures including joint bays and link boxes would be sufficiently watertight to ensure that the infrastructure will not be adversely affected in the case of a flood event along the cable route. On the basis of the above therefore, I consider the proposed development to be acceptable in terms of flood risk.

Archaeological and Cultural Heritage Issues

8.11.15. A detailed archaeological assessment was undertaken as part of the PECR submitted. As with other potential impacts, any adverse archaeological impacts are on the whole confined to the construction phase of the project. As indicated already, the majority of the UGC will be installed along or adjacent to the public road network via an open cut trench. Approximately 23 km of the route will be located within the confines of the N5 while approximately 11 km will be located within the N26. A further 17 km will be located within the local road network. A further c. 8km will traverse agricultural lands. Table 13.2 of the PECR provides details of all the RMP's within the study area⁴. 103 RMP's were recorded within the study zone, 12 of which were located within 20m of the route. 7 protected structures were located within 100 m of the route, all of which were located within the town of Swinford. Details of the recent excavations carried out within the study area are also set out in the PECR. In terms of impacts, it is acknowledged that the proposed trench will pass through a number of zones of notification for a number of the RMP and there therefore is a

⁴ 250m form the centre line of the route corridor.

possibility that the excavation undertaken as part of the proposal could unearth or disturb the subsurface archaeological features relating to the site.

8.11.16. By way of mitigation, it is proposed that all construction areas outside the existing road carriageways and where the route passes within the zone of notification for any RMP's together with the substation expansion at Tonroe, will be the subject of a program of archaeological monitoring. Furthermore, all groundworks relating to the construction of permanent access tracks, passing bays, joint bays, HDD and construction compounds in areas outside the existing road carriageways are within the zone of notification for any RMP's will be the subject of archaeological monitoring. This will be carried out by a suitably qualified archaeologist under licence. If significant archaeological material is encountered during the course of archaeological monitoring, then resolution of any such significant material will be determined in consultation with the National Monuments Service. Where possible, every reasonable effort will be made to preserve in-situ or reduce the effect on any identified archaeological material. Where preservation in situ cannot be achieved either in whole or in part, then a program of full archaeological excavation will be undertaken and carried out by a suitably qualified archaeologist under licence. A written report will be prepared detailing the results of all archaeological works undertaken. No anticipated archaeological impacts are likely to rise under the operational phase of the proposal.

8.11.17. On the basis of the information contained in the PECR, I am satisfied that appropriate archaeological monitoring will take place during the course of construction and that suitable mitigation and monitoring measures will be put in place to ensure that any archaeological remains are appropriately identified and recorded. The impact of the proposal on archaeology is therefore considered to be acceptable.

Visual Impact

8.11.18. In terms of the visual impact arising from the development, there will be some adverse visual impact during the construction phase. However, the impact will mainly be confined to the existing road network, which has obviously been the subject of significant manmade intervention and as such, cannot be regarded as a pristine natural environment. The construction of the underground cabling within and adjacent to the existing road network, together with the presence of the construction

compounds will not therefore give rise to any significant visual amenity impacts along the road network. It will also involve the excavation of trenches to accommodate the cabling across agricultural lands, this will possibly have a slightly greater impact in visual terms as it involves lands that are located further away from the man-made environment. Notwithstanding this point, the works to be undertaken are quite modest in visual terms and will only impact on a small section of the route at any given time. Furthermore, the impacts are only temporary and therefore will not give rise to any long-term permanent impacts. As the cable route is progressively reinstated, the impacts during the operation phase will not be discernible.

8.11.19. The only distinguishable impact which will arise as a result of the alterations to the substations at Moy and Tonroe will be provision on additional electrical infrastructure at the stations. The visual impact at the Tonroe Station will be greater as this substation is to incorporate a considerable expansion. However, any visual impact will be tempered by the fact that the additional electrical infrastructure will be added to the existing infrastructure at the substations. I refer the Board to the photomontages submitted with the application; it clearly demonstrates the visual impact in the case of the expansion to both substations. The visual impact arising from the works to be undertaken at Tonroe will be more profound but nonetheless acceptable in my view. Both substations are located at the periphery of built-up areas of relatively low landscape quality. But the substations are located in an area that is predominantly agricultural. The immediate area is also characterised by major roads, residential dwellings and existing electrical infrastructure which undoubtedly influenced the overall landscape character. For this reason, I would consider the sensitivity of the landscape character to be low. Views of the substations, are screened by existing vegetation to some extent, as indicated in the photomontages submitted. It is proposed to augment the existing vegetation around the perimeter of both substations in order to soften the visual impact.

8.11.20. Having visited both substation sites, I do not consider the visual impact arising from the proposed expansion of the substations, would be significant. Any adverse visual impact which may arise for visual receptors in the vicinity of either substation must be balanced against the wider strategic requirements in relation to energy transmission throughout the region. On this basis I considered the visual impact of the proposal to be acceptable.

Waste Issues

8.11.21. The main waste streams arising will be generated during the construction phase. Most of the excavated material generated during the construction of the cable trenches will be used as backfill during the reinstatement process. Generated waste will be managed in accordance with the principles of the waste management hierarchy and the Waste Management Act 1996. The applicant is also given an undertaking that 70% of construction and demolition waste will be recycled. Details of quantity of waste to be generated by the proposed developer are not indicated in the documentation submitted. However I am satisfied that overall waste generation arising from the proposal will be modest and will be managed in accordance with sustainable waste management principles.

Utilities

8.11.22. Issues regarding the placement of the cable in the context of existing utilities along the roadway including Irish water utilities, have already been addressed previously in this assessment. With regard to the disruption of other utilities in the wider area, the applicant states in the documentation submitted that unplanned disruptions to any services to surrounding residential social or commercial properties will be kept to a minimum and will only occur where unavoidable. Consultation with relevant neighbouring parties will be undertaken prior to any potential disruptions. Where such disruptions may occur these, disruption will be of a temporary nature and should not be considered fatal to the overall application having regard to its strategic importance.

9.0 Appropriate Assessment

9.1. Article 6(3) of the Habitats Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site. This section of the assessment considers the likelihood of significant effects on European

Sites from the construction operation of and commissioning of the proposed development.

- 9.1.1. The application site is not in itself located within a designated Natura 2000 Site. Notwithstanding this point, the proposed alignment of the UGC does traverse the River Moy SAC at certain points along the route. The application was accompanied by a Natura Impact Statement which included a screening for Appropriate Assessment. The NIS contains a description of the proposed development, the project site and the surrounding area as well as details of the field surveys and the assessment methodology informing the appropriate assessment. It contains a Stage 1 Screening Assessment which concludes that a Stage 2 Appropriate Assessment and an NIS is required. It predicts the potential impacts for this site within the zone of influence and provides a summary of potential effects. The final section sets out a suite of mitigation measures which essentially relate to water quality, reducing disturbance to wintering birds and otter and preventing the spread of invasive species. It concludes that with the implementation of the mitigation measures, and in light of the best scientific knowledge, there will be no significant effects either individually or with other plans or projects on the integrity or on species of conservation interest associated with Natura 2000 Sites in the vicinity.
- 9.1.2. Having reviewed the NIS and the supporting documentation, I am satisfied that it provides adequate information in respect of the baseline conditions, clearly identifies the potential impacts, and uses best scientific information and knowledge to assess any potential impacts. It also provides details of mitigation measures to ensure that no adverse impacts arise in respect of Natura 2000 Sites in the vicinity of the proposed route. I am satisfied that the information is sufficient to allow for an independent appropriate assessment to be undertaken by the Board of the proposed development.

Stage One - Screening

- 9.1.3. The proposed is located in close proximity and traverses a designated European Site. The proposal is not necessary for the management of any Natura 2000 Site. There are 10 SAC's and 3 SPA's within an area which is considered to be within the zone of Influence (Zol) of the proposed UGC route, the construction compounds and the existing substations.

9.1.4. The sites considered within the Stage 1 Screening and the distances from the cable route and associated infrastructure are summarised below.

Site	Site Code	Distance from Development	With the zone of influence	Potential Impact?
The River Moy SAC	002298	Traverses the proposed development at sections along the route at: - MT03-MT04 - MT06-MT07 - MT08-MT09 and MT12-13. The cable route runs immediately adjacent to the SAC boundary for a distance of 1.1km. There are also a number of watercourses which have connectivity with the SAC that intersect with the proposed route	Potential water pollution due to accidental spillage, increase sediment run-off etc during the construction or decommissioning phase.	Yes
Killala Bay/Moy Estuary SAC	000458	1.6km it is closest to section MT01-MT02 of the route. The SAC is hydrologically connected to the Moy River. The development therefore does have the potential to impact on QI associated with this SAC	Potential water pollution during construction and decommissioning phase. Particularly the aquatic species that form part of the SAC including the sea lamprey and the seal.	Yes
Tullaghanrock Bog	002354	2.6 km from section between MT-15 and MT16	Given the fact that there is no hydrological connection between the lands on which the works are to take place and the nature of the qualifying interests, the potential for likely significant effects can be excluded.	No
Callow Bog SAC	000595	2.6km from section between MT-15 and MT16	Due to separation distance, the absence of hydrological connection and the nature of qualifying interests, no significant impacts are anticipated.	No

Lough Hoe Bog SAC	000633	4.8km	hydrological connection exists, the SAC is located upstream and thus there is no viable pathway between the works and the SAC. As such no significant impacts are anticipated.	No
Bellanagare Bog SAC	000592	10.8km	Due to separation distance, the nature of the qualifying interests, and the absence of hydrological connection no significant impacts are anticipated.	No
Derrina Bog SAC	000604	10.3 km	Due to separation distance and the absence of hydrological connection which exists via the existing river network, no significant impacts are anticipated.	No
Cloonshanville Bog SAC	000614	12 km	Due to separation distance and the lack of hydrological connection which exists and the nature of the qualifying interests, which relate to habitats rather than species, no significant impacts are anticipated.	No
Urlaur Lakes SAC	000607	10.7km	Due to separation distance and the absence of hydrological connection no significant impacts are anticipated. The habitats in question are rain water fed.	No
Errit Lough SAC	004080	13km	Due to separation distance and the lack of hydrological connection and the nature of the qualifying interest hard oligotrophic waters - no significant impacts are	No

			anticipated.	
Killala Bay /Moy SPA	004036	c..3.1km	The development is hydrologically connected to the SPA via the River Moy. Any degradation in the waters into the estuary could also result in the degradation of the supporting habitat for the SCI associated with the SPA. .	Yes
Lough Conn and Lough Cullin SPA	004228	C4.3km	While there is no hydrological connection along the proposed route and the SPA in question, the SPA is relatively close to the route in the vicinity of Foxford. There is potential for the SCI's associated with the SPA to occur outside the site boundary and therefore in proximity to the proposed development	Yes
Lough Gara SPA	004048	c. 3.9km	The development is hydrologically connected to the via a somewhat circuitous route to Lough Gara SPA. Any degradation in the waters into the Lough could also result in the degradation of the supporting habitat for the SCI associated with the SPA .Furthermore where SCI occur outside the site boundary, the potential for temporary disturbance and displacement may occur.	Yes

Screening Determination

Based on my examination of the NIS report and supporting information, the NPWS website, aerial and satellite imagery, the scale of the proposed development and likely effects, separation distance and functional relationship between the proposed works and the European sites, their conservation objectives and taken in conjunction with my assessment of the subject site and the surrounding area, I would conclude that a Stage 2 Appropriate Assessment is required for 5 of the European sites referred to above, Namely:

- The River Moy SAC Site Code 002298
- The Killala Bay / Moy Estuary SAC 000458
- Killala Bay /Moy SPA 004036
- Lough Conn and Lough Cullin SPA 004228
- Lough Gara SPA 004048

I note the AA screening report submitted with the application came to the same conclusion. The remaining sites referred to in the table above, can be screened out from further assessment because of the scale of the proposed works, the nature of the Conservation Objectives, the nature of Qualifying and Special Conservation Interests which primarily relate to habitats which will not be directly impacted upon as a result of the proposal, the separation distances and the lack of a substantive linkage hydrological or otherwise between the proposed works and the European sites. It is therefore reasonable to conclude that, on the basis of the information on the file, which I consider adequate in order to issue a screening determination, the proposed development, individually or in combination with other plans or projects would not be likely to have a significant effect on these other 8 European Sites in view of the sites' conservation objectives and a Stage 2 Appropriate Assessment is not therefore required for these sites.

Stage Two – Appropriate Assessment

The Natura 2000 Sites which could potentially be affected by the proposed development are described, and the qualifying interests associated with the Natura 2000 Sites are set out below:

River Moy SAC

This site comprises almost the entire freshwater element of the River Moy and its tributaries including both Loughs Conn and Cullin. The system drains a catchment area of 805 sq. km. Apart from the Moy itself, other rivers included within the site are the Deel, Bar Deela, Castlehill, Addergoole, Clydagh and Manulla on the west side, and the Glenree, Yellow, Strade, Gweestion, Trimogue, Sonnagh, Mullaghanoe, Owengarve, Eighnagh and Owenaher on the east side. There are many towns adjacent to but not within the site. These include Ballina, Crossmolina, Foxford, Swinford, Kiltimagh and Charlestown. While the river network and lands adjacent to the river host important habitats including lowland Hay Meadow, Raised Bog Alkaline Fens, Old Oak Woodlands and Alluvial Forests. The potential impacts arising from the proposed development primarily relate to the water body itself.

The Moy system is one of Ireland's premier salmon waters and it also encompasses two of Ireland's best lake trout fisheries in Loughs Conn and Cullin. Although the Atlantic Salmon (*Salmo salar*) is still fished commercially in Ireland, it is considered to be endangered or locally threatened elsewhere in Europe and is listed on Annex II of the E.U. Habitats Directive. The Moy is a most productive catchment in salmon terms and this can be attributed to its being a fingered system with a multiplicity of 1st to 5th order tributaries which are large enough to support salmonids < 2 years of age while at the same time being too small to support significant adult trout numbers and are therefore highly productive in salmonid nursery terms. Salmon run the Moy every month of the year. The peak of the spring fishing is in April and the grilse begin running in early May.

In general spring fish are found more frequently in the rivers at the western extent of the Moy system. The Arctic Char (*Salvelinus alpinus*), an interesting relict species from the last ice age, which is listed as threatened in the Irish Red Data Book has been recorded from Lough Conn and in only a few other lakes in Ireland. The latest reports suggest that it may now have disappeared from the site. The site is also important for the presence of four other species listed on Annex II of the E.U. Habitats Directive, namely Sea Lamprey, Brook Lamprey, Otter and White-clawed Crayfish. The Sea Lamprey is regularly encountered in the lower stretches of the river around Ballina, while the Otter and White-clawed Crayfish are widespread throughout the system. In addition, the site also supports many of the mammal species occurring in Ireland. Those which are listed in the Irish Red Data Book

include Pine Marten, Badger, Irish Hare and Daubenton's Bat. Common Frog, another Red Data Book species, also occurs within the site.

The qualifying interests associated with the site are as follows:

Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510]

Active raised bogs [7110]

Degraded raised bogs still capable of natural regeneration [7120]

Depressions on peat substrates of the Rhynchosporion [7150]

Alkaline fens [7230]

Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]

Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]

Austropotamobius pallipes (White-clawed Crayfish) [1092]

Petromyzon marinus (Sea Lamprey) [1095]

Lampetra planeri (Brook Lamprey) [1096]

Salmo salar (Salmon) [1106]

Lutra lutra (Otter) [1355]

Killala Bay/ Moy Estuary SAC

North of Ballina town, the River Moy flows to the sea via a long, narrow estuarine channel. After approximately 8 km, the estuary widens to form a north-facing triangular bay, with the towns of Inishcrone (Co. Sligo) and Killala (Co. Mayo) situated on the eastern and western shores, respectively. In addition to the habitats listed as qualifying interests, The site holds populations of three species listed on Annex II of the E.U. Habitats Directive: Common Seal (maximum count of 108 in the all-Ireland survey of 2003); Sea Lamprey and Narrow-mouthed Whorl Snail (*Vertigo angustior*). The rare snail has been known at this site for over 100 years. It occurs in an area of wet marsh and this site represents one of the few remaining examples of *Vertigo angustior* in its marsh "phase". This species has been declining throughout much of its range due to loss of habitat, and in particular, drainage of wetlands. The site is very important for wintering waterfowl, with eight species having populations of

national importance. These are as follows, with numbers referring to the average peaks over winters 1994/95 - 1997/98: Red-breasted Merganser (38), Ringed Plover (207), Grey Plover (200), Knot (429), Sanderling (135), Dunlin (1816), Bar-tailed Godwit (309) and Greenshank (19). Other notable populations include Golden Plover (1303) and Brent Goose (166). At times Brent Goose occur in numbers of international importance (>200). The presence of Golden Plover and Bar-tailed Godwit is of particular note as these species are listed on Annex I of the E.U. Birds Directive. This composite site has an excellent range of good quality coastal habitats, including a number listed on Annex I of the E.U. Habitats Directive.

The Qualifying Interests associated with the SAC are as follows:

Estuaries [1130]

Mudflats and sandflats not covered by seawater at low tide [1140]

Annual vegetation of drift lines [1210]

Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]

Salicornia and other annuals colonising mud and sand [1310]

*Atlantic salt meadows (*Glauco-Puccinellietalia maritima*) [1330]*

Embryonic shifting dunes [2110]

*Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120]*

Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]

Humid dune slacks [2190]

**Vertigo angustior* (Narrow-mouthed Whorl Snail) [1014]*

**Petromyzon marinus* (Sea Lamprey) [1095]*

**Phoca vitulina* (Harbour Seal) [1365]*

Killala Bay /Moy SPA 004036

This large site comprises the estuary of the River Moy and the inner part of Killala Bay, including Lackan Bay and Rathfran Bay, in Counties Mayo and Sligo. The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Ringed Plover, Golden Plover, Grey Plover, Sanderling, Dunlin, Bar-tailed Godwit, Curlew and Redshank. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA,

the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds. The site is very important for wintering waterfowl and provides excellent feeding grounds for the birds, as well as high-tide roosts. Eight species have populations of national importance, i.e. Ringed Plover (245), Golden Plover (2,361), Grey Plover (221), Sanderling (123), Dunlin (2,073), Bar-tailed Godwit (366), Curlew (731) and Redshank (372) - all figures are mean peaks for the five year period 1995/96 to 1999/2000). A range of other species occurs, including Light-bellied Brent Goose (170), Shelduck (64), Wigeon (339), Teal (236), Red-breasted Merganser (44), Red-throated Diver (15), Oystercatcher (531), Lapwing (1,854) and Greenshank (24). The site is also used by Mallard (92), Turnstone (50), Grey Heron (21) and Cormorant (40). Substantial numbers of gulls are present at the site during winter, including Black-headed Gull (338), Common Gull (368), Herring Gull (336) and Great Black-backed Gull (120).

Killala Bay/Moy Estuary SPA is of high ornithological importance as it supports eight species that have populations of national importance, including a very substantial population of Grey Plover (3.4% of the all-Ireland total). The presence of Red-throated Diver, Golden Plover and Bar-tailed Godwit is of particular note as these species are listed on Annex I of the E.U. Birds Directive. Killala Bay/Moy Estuary is a Ramsar Convention site.

Qualifying Interests

Ringed Plover (Charadrius hiaticula) [A137]

Golden Plover (Pluvialis apricaria) [A140]

Grey Plover (Pluvialis squatarola) [A141]

Sanderling (Calidris alba) [A144]

Dunlin (Calidris alpina) [A149]

Bar-tailed Godwit (Limosa lapponica) [A157]

Curlew (Numenius arquata) [A160]

Redshank (Tringa totanus) [A162]

Wetland and Waterbirds [A999].

Lough Conn and Lough Cullin SPA 004228

The main inflowing rivers to Lough Conn are the Deel, the Addergoole and the Castlehill while the main outflowing river from Lough Cullin is the River Moy. The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Greenland White-fronted Goose, Tufted Duck, Common Scoter and Common Gull. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds. Lough Conn and Lough Cullin is one of only four breeding sites in the country for Common Scoter, which in Ireland is at the south-west end of its European range. A survey in 1995 recorded 31 pairs, however, a survey in 1999 gave a total of 30 birds for both lakes, comprising 5 pairs, 18 unpaired males and 2 unpaired females.

Lough Conn and Lough Cullin is of importance for wintering waterfowl, with a nationally important population of Tufted Duck (428) - all figures are mean peaks for four of the five winters in the period 1995/96 to 1999/2000. The lakes attract other species in lesser numbers, including Mute Swan (110), Whooper Swan (23), Wigeon (207), Teal (108), Mallard (95), Pochard (182), Coot (464), Golden Plover (177), Goldeneye (87), Lapwing (290), Cormorant (17), Curlew (92) and Great Crested Grebe (6). Lough Conn is also one of the sites utilised by a population of Greenland White-fronted Goose (123 - five year mean peak for the flock during the period 1994/95 to 1998/99). The geese feed mainly on Annagh Island and at a shoreline site near Cloonaghmore Point (95 - five year mean peak for the geese recorded within the SPA during the period 1994/95 to 1998/99).

Lough Conn is a traditional breeding site for gulls and terns. In 1977, Black-headed Gull (c. 1,000 individuals) and Common Gull (70 individuals) were recorded. A recent survey in 2000 recorded 40 pairs of Common Gull and 10 pairs of Lesser Black-backed Gull. The Common Gull colony is of national importance. Both Common Tern and Arctic Tern bred in 1984 (42 and 10 pairs respectively on Lough Conn and 4 pairs of either Arctic/Common Tern on Lough Cullin). There were no records of either species breeding at this site in the 1995 national tern survey but a survey in 2000 recorded 1 pair of Common Tern breeding on Lough Conn. Lough Conn and Lough Cullin is one of only four areas in the country where Common Scoter breed. The site

also supports a good diversity of wintering waterfowl species, including Greenland White-fronted Goose and a nationally important population of Tufted Duck. The occurrence of Greenland White-fronted Goose, Whooper Swan and Golden Plover is of note as these species are listed on Annex I of the E.U. Birds Directive. Part of the Lough Conn and Lough Cullin SPA is a Wildfowl Sanctuary.

The Species of Conservation Interest associated with the Lough Conn and Lough Cullin SPA are:

Tufted Duck (Aythya fuligula) [A061]

Common Scoter (Melanitta nigra) [A065]

Common Gull (Larus canus) [A182]

Greenland White-fronted Goose (Anser albifrons flavirostris) [A395]

Wetland and Waterbirds [A999]

Lough Gara SPA 004048

Lough Gara is located on the Co. Sligo/Roscommon border south-west of the Curlew Mountains and between the towns of Boyle and Ballaghaderreen. Most of the lake is in Co. Sligo, but two sections in the south and north-east lie within Co. Roscommon. It is a shallow (maximum depth 16 m), medium-sized lake, which overlies Carboniferous limestones and shales, and Devonian sandstone. The main inflowing river is the River Lung while the main outflow is the Boyle River. Lough Gara is used regularly by an internationally important population of Greenland White-fronted Goose (mean peak of 510 individuals over the five winters 1995/96 to 1999/2000). An internationally important population of Whooper Swan also uses the site (mean peak of 321 for the 5 year period 1994/95 to 1998/99), with high numbers present in the winter of 1996/97 (peak of 654). A range of other species occurs, including Great Crested Grebe (16), Mute Swan (38), Wigeon (593), Teal (44), Mallard (157), Shoveler (18), Pochard (41), Tufted Duck (49), Goldeneye (20), Golden Plover (270), Lapwing (75) and Lesser Black-backed Gull (172) - all figures are mean peaks for the two winters 1995/96 to 1996/97. Lough Gara SPA is of high ornithological importance principally on account of the internationally important populations of Greenland White-fronted Goose and Whooper Swan that are associated with the lake. The occurrence of these species, along with Golden Plover, is of particular note

as they are listed on Annex I of the E.U. Birds Directive. Lough Gara is a Ramsar Convention site and a Wildfowl Sanctuary.

The Species of Conservation Interest associated with the Lough Gara SPA are:

Whooper Swan (Cygnus cygnus) [A038]

Greenland White-fronted Goose (Anser albifrons flavirostris) [A395]

Potential Impacts on Key Species and Key Habitats

- 9.1.5. Water quality is a key environmental factor underpinning the conservation condition of a number of the qualifying interests associated with each of the Natura 2000 Sites referred to above. The main risk to water quality will be during the construction phase. In the event of release of suspended sediment or a release of other pollutants into watercourses during construction works, there could be significant indirect effect downstream on the river Moy itself or the various water courses and streams that feed into that River. In the event of siltation or pollution of watercourses from the site, the aquatic habitats and species could be indirectly damaged by changes to water turbidity and water quality and thereby potentially impacting on the integrity of qualifying interests associated with the Moy SAC, or potentially other waterbodies that are designated as European Sites.
- 9.1.6. The elevated noise and vibration which could occur during the construction phase could result in species disturbance particularly in relation to birds and otters where they frequent habitats in the vicinity of the UGC. Vibration effects may be detectable to salmonids in relation to HDD crossings of water courses. The presence of humans and machinery have the potential to result in avoidance behaviours by wetland birds and otters. Human activities and the presence of machinery have the potential to result in species avoiding the area.
- 9.1.7. The potential to introduce or spread invasive species whereby species such as zebra mussels could be transferred to other water bodies or other terrestrial species (Japanese knotweed etc) could be introduced into lands in the vicinity of the route.
- 9.1.8. Fugitive dust from construction works also has the potential to impact on species are part of the Qualifying Interests or Species of Conservation Interest of the Natura 2000 sites in the vicinity. Dust deposition in the surrounding water can also result in silt laden waters which pose a threat to fish.

9.1.9. The potential impacts in each of the SAC's are summarised in the table below:

River Moy SAC	Potential Impact	Yes /No
Watercourse crossings.	Numerous crossings traversing the river will be undertaken via HDD. This will reduce the impact on QI associated with the SAC. But there still is a potential of frac out of bentonite to occur in the absence of mitigation.	No
Excavation within the Roadway	Where the UGC is to be placed entirely within the roadway there is no potential for direct impacts on QI's.	No
Otters	While no otters or couches or holts were identified within 150m of the work areas. It is likely that otters commute or forage in this area.	Yes
Water pollution and spillages	Degradation in water quality has the potential to impact on the following QI's - white clawed crayfish, sea lamprey, brook lamprey salmon and otter.	Yes
Dust	The deposition of dust into a watercourse can increase suspended solid content which can result in the degradation of water quality and aquatic vegetation downstream	Yes
Spread of invasive species	While no species other than the zebra mussel, were identified during the field walkovers there is potential for these species to become established within the footprint of the proposed development if machinery is not properly cleaned.	Yes
Killala Bay/ Moy Estuary SAC	Potential Impact	Yes /No
Direct Impacts	The works are located outside the European site boundary therefore no direct impacts on the QI's of site are anticipated. The location of the proposed development is 2km upstream from the southerly extent of their Killala Bay/ Moy Estuary SAC. The works to be undertaken therefore are located outside the zone of influence associated with this SAC. Harbour seals may occur along the river mall at least on occasion, however the nature of the works along the river Moy is such that no in direct effects to the species will occur.	No

Noise and Vibration effects	Due to the separation distances involved no impacts are anticipated.	No
Pollution associated with construction	There is potential for the release of surface water emissions into the SAC via the Moy River pathway. However, having regard to the separation distances involved and even in the worst-case scenario, where a bentonite breakout occurs during a HDD river crossing, it is highly unlikely, having regard to the large dilution and dispersion capacity within the river, that any adverse impacts would occur downstream.	No
potential for introduction or spread of invasive species	The main potential in this regard relates to the spread of the zebra mussel. Having regard to the HDD methodology to be employed in the watercourse crossing there was no potential for the works to be undertaken to exacerbate the spread of this species.	No
Killala Bay/ Moy SPA	Potential Impact	Yes/ No
Potential for disturbance	The disturbance caused by noise impulses together with the presence of humans and machinery could result in the displacement of key foraging areas in proximity to the proposed works. Small flocks of Curlew and Golden Plover may be located in the vicinity of the proposed cable however given the short-term nature of any disturbance largely within an already disturbed area adverse impacts during the construction phase are not considered likely.	No
Pollution Associated with construction	Having regard to the separation distances involved and even in the worst-case scenario where a bentonite breakout occurs during a HDD river crossing, it is highly unlikely having regard to the large dilution and dispersion capacity within the river that any adverse impacts would occur downstream, to the extent that any such pollution episode could result in the degradation of supporting wetland habitats associated with the SPA.	No
Potential for introduction or spread of invasive species	The main potential in this regard relates to the spread of the zebra mussel. Having regard to the HDD methodology to be employed in the watercourse crossing there was no potential for the works to be undertaken to exacerbate the	No

	spread of this species.	
Lough Gara SPA	Potential effects	No
Whooper Swan	The Whooper Swan is the only SCI associated with the SPA recorded in close proximity to the proposed development. There is potential to displace this species of bird through noise and vibration impacts associated with construction activity are high. However, surveys indicate that the main foraging areas for whooper Swans are in the river Moy Valley between Ballina and Foxford. These areas are over 500 meters from the proposed route alignment. Therefore no impacts are anticipated.	No
Possible water pollution impacts	There is hydrological connectivity between the area where the works are to be located and Lough Gara, as the subject site is hydrologically connected to The River Lung. In the absence of mitigation measures there is the potential to pollute Lough Gara.	Yes
Potential for invasive species	Again, the subject site is hydrologically connected to Lough Gara SPA via the River Lung. If the spread of invasive species were to occur in particular with regard to the zebra mussel, this has the potential to cause a shift in the capacity of the habitat to support wetland bird species.	Yes
Lough Conn and Lough Cullin SPA	Potential Impacts	Yes/No
Human Disturbance/ Noise and vibration effects	The Common Gull an SCI Species associated with Lough Conn and Lough Cullin SPA, was recorded in proximity to the proposed development at Carrowkeribly Lough. Given the very low numbers of Common gull and the short-term nature of any disturbance associated with the proposed development impacts to the SCI's are not considered likely. However precautionary mitigation is outlined to minimise possible disturbance.	Yes
Water Pollution	There is no hydrological connection between the works to be undertaken and the SPA in question. As such there is no potential for impacts to the SPA caused by surface water emissions.	No

Invasive Species	There is no hydrological connection between the works to be undertaken and the SPA in question. As such there is no potential for impacts to the SPA caused by surface water emissions in respect of the zebra mussel.	No
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Assessment of Potential Effects

9.1.10. It is therefore reasonable to conclude on the basis of the assessment carried out above that in the absence of specific mitigation measures, works to be undertaken as part of the proposed development particularly during the construction phase, poses a level of threat to features of interest associated some of the Natura 2000 sites which were the subject of assessment. These potential impacts as summarised below:

- Excessive sediment runoff during construction and trench excavations of the UGC.
- A major spillage or long-term leakage of hydrocarbons or other chemicals on site which are used during the construction phase. This could occur if fuels lubricants or other chemicals are not appropriately managed.
- Some disturbance of foraging or commuting habitat for birds and otters due to human activity and noise associated with construction.
- The transportation of invasive alien species on site, including the zebra mussel which could be released into water courses and become established downstream in the SAC/SPA which could have adverse implications on downstream riverine ecosystems.

Mitigation Measures

9.1.11. The mitigation measures are set out in section 3.5 of the NIS. They provide a host of specific measures in order to minimise the potential impacts and to ensure that any impacts that could potential arise are not significant. They include

- Pre-Construction confirmatory surveys of the distribution of species and habitats that change over time. These surveys are to ensure there is an accurate picture of the species and habitats in the vicinity immediately prior to

works commencing. These surveys will be particularly important for wintering birds and otters.

- Ecological supervision and monitoring of any potential disturbance during the course of the works.
- Mitigation measures against water quality impacts to surface water.
- Mitigation measures against disturbance to wintering birds
- Mitigation measures to mitigate against disturbance to the otter.
- Mitigation measures to prevent the spread of invasive species

In-combination Effects

9.1.12. There are not considered to be any associated /connected development associated with the UGC and associated upgrading of the substations which could impact on surrounding Natura 2000 sites.

9.1.13. In terms of additive impacts from other developments in the wider area, I note that both the NIS and PECR assess cumulative impact arising from other planned and future development in the area including the:

- Moy Arterial Drainage Scheme,
- The Flagford-Tonroe 110kV Line Overhead Line Uprate Works.
- The North Connacht 110kV Bathymetry and Topographical Survey
- The Proposed Flagford Sliabh Bawn 110 kV Line Uprate
- The N5 Ballaghaderreen to Scramoge Road Development
- Glenree-May 110kV Uprate
- The Castlebar-Cloon 110kV Uprate

9.1.14. No in-combination effects are anticipated.

Residual Effects

9.1.15. No significant residual effects are identified following implementation of the recommended mitigation measures.

Appropriate Assessment Conclusions

Having regard to the works proposed, and the European sites in the vicinity and subject to the implementation of best practice construction methodologies and the proposed mitigation measures, I consider that it is reasonable to conclude on the basis of the information on the file, which I consider adequate in order to carry out a Stage 2 Appropriate Assessment, that the proposed development, individually or in combination with other plans and projects would not adversely affect the integrity of The River Moy SAC (Site Code 002298), The Killala Bay / Moy Estuary SAC (Site Code 000458), Killala Bay /Moy SPA (Site Code 004036), Lough Conn and Lough Cullin SPA (Site Code 004228) and the Lough Gara SPA (Site Code 004048) or any other European site, in view of the site's Conservation Objectives.

10.0 Recommendation

10.1. Having regard to the foregoing I recommend that permission is granted subject to conditions hereunder.

11.0 Reasons and Considerations

In coming to its decision, the Board had regard to the following:

European legislation, including of particular relevance:

- Directive 92/43/EEC (Habitats Directive) and Directive 79/409/EEC as amended by 2009/147/EC (Birds Directives) which set the requirements for Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union.
- EU Renewable Energy Directive 2009/28/EC which aims to promote the use of renewable energy

National and regional planning and related policy, including:

- National Development Plan
- National Planning Framework
- Government Policy Statement on the Strategic Importance of Transmission and Other Energy Infrastructure, July 2012,

- Policy Statement on Security of Electricity Supply, Department of the Environment, Climate and Communications. 2021

Regional and local level policy, including the:

- Regional Spatial Economic Strategy for the Southern Region

The local planning policy including:

- Mayo County Council Development Plan 2022-2028
- Roscommon County Development Plan 2022-2028
- other relevant guidance documents
- the nature, scale and design of the proposed development as set out in the planning application and the pattern of development in the vicinity,
- the likely consequences for the environment and the proper planning and sustainable development of the area in which it is proposed to carry out the proposed development and the likely significant effects of the proposed development on European Sites
- the submissions made to An Bord Pleanála in connection with the planning application, and
- the report and recommendation of the Inspector, including the examination, analysis and evaluation undertaken in relation to appropriate assessment and the planning and environmental considerations report.

11.1. Proper Planning and Sustainable Development

11.2. It is considered that the proposed development would accord with European, national, regional and local planning and that it is acceptable in respect of its likely effects on the environment and its likely consequences for the proper planning and sustainable development of the area.

12.0 Conditions

13.0 Conditions

1. The proposed 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 in writing with the planning authority prior to commencement of development and the proposed development shall be carried out in accordance with the agreed particulars.

Reason: In the interest of clarity.

2. (a) All mitigation, environmental commitments and monitoring measures identified in the Planning and Environmental Considerations Report shall be implemented in full as part of the proposed development.

(b) All mitigation and environmental commitments identified in the Natura Impact Statement shall be implemented in full as part of the proposed development.

Reason: In the interest of development control, public information, and clarity.

3. In accordance with the Planning and Environmental Considerations Report, all works shall be monitored by an Ecological Clerk of Works. Where appropriate, monitoring shall be specialists including ornithologists, freshwater ecologists (water crossings) and botanists (habitat removal and re-instatement works and Roadside/Field boundaries).

Reason: In the interest of environmental protection.

4. All works undertaken in the regional and local road networks are to comply with the "*Guidelines for Managing Openings in Public Roads*" published by the Department of Transport, Tourism and Sport in April 2017.

Reason: To maintain the structural integrity of the local and regional road network.

5. Where it is proposed to lay high voltage cabling within the national road reservation, all cabling shall be laid outside paved areas of the national road. In the event that cable laying must occur in the national road pavement, due to the absence of available non-paved areas, verge space or other adjacent lands, appropriate plans and details shall be agreed with the relevant roads authority in collaboration with Transport Infrastructure Ireland in advance of any construction.

Reason: To safeguard the significant investment in the national road network in accordance with Government objectives and to ensure the North Connacht Project is compatible with future improvements and maintenance works to the national road network, in the interests of road user safety.

6 . The proposed joint bays shall be temporary and shall be removed once the jointing of high voltage cabling is complete. A standard detail and construction methodology for the use of temporary joint bays in the national road reservation using trench boxes, or similar, shall be agreed with the road's authority in collaboration with TII, prior to the commencement of development. On completion of the cable jointing at each joint location, the temporary joint bays shall be removed and the national road verge and/or pavement shall be reinstated to the satisfaction of the roads authority in collaboration with TII.

Reason: To safeguard the significant investment in the national road network in accordance with Government objectives and to ensure the North Connacht Project is compatible with future improvements and maintenance works to the national road network, in the interests of road user safety.

7. Horizontal Directional Drilling (HDD) or other appropriate alternatives shall be utilised for all crossings with appropriate plans and details to be agreed with the relevant roads authority in collaboration with TII in advance of any construction to ensure avoidance of national road infrastructure, including structures, associated embankments, drainage, communications, etc. Details of the methods to be employed shall be agreed in writing with Mayo County Council, Roscommon County Council and TII.

Reason: In the interests of the proper planning and sustainable development of the area and to protect the integrity and carrying capacity of the national road network.

8. Noise monitoring shall be carried out at all times during the construction phase of the development.

Reason: In the interest of environmental protection and public health.

9. Water supply and drainage arrangements, including the attenuation and disposal of surface water, shall comply with the requirements of the planning authority for such works in respect of both the construction and operation phases of the proposed development.

Reason: In the interest of environmental protection and public health.

10. Prior to the commencement of development, the applicant shall agree details for all crossings above and below Irish Water Assets. The applicant shall ensure that no additional load or force to any Irish Water assets from any preconstruction, post construction or operational phases will result from the proposed development. All detailed designs including separation distances shall be in accordance with Irish Waters *Technical Standards, Codes of Practice, Standard Details* and other associated Irish Water requirements.

Reason: To protect existing Irish Water Infrastructure.

11. The applicant shall ensure that sufficient access is established to maintain and replace Irish Water Assets at any location beneath the proposed 110kV underground cable.

Reason: To ensure that sufficient access is maintained for the future maintenance of Irish Water Assets.

12. Any new surface water outfalls which may be required as a result of laying the underground cable, shall be constructed in a manner which protects riparian habitat and does not result in excessive erosion of such habitat.

Reason: In the interest of habitat protection.

13. Construction works will be undertaken in accordance with best practice and relevant guidance to prevent any deterioration of water quality and disturbance to bird species, as set out in the CEMP. This plan shall provide details of

intended construction practice for the development, including hours of working, noise management measures, surface water management proposals, the management of construction traffic and off-site disposal of construction waste.

Reason: In the interests of public safety, protection of ecology and residential amenity.

14. The developer shall monitor traffic queuing time / delays at each works location on the N5 and N26 and record traffic flows on the local road network at locations to be agreed with the Local Authority. Such monitoring information shall be provided in a report to the Local Authority on a weekly basis.

Reason: In the interest of orderly development.

15. The detailed design of the North Connacht Project underground cable shall consider and where possible incorporate the alignment of any future road improvements and shall be agreed in writing with both Transport Infrastructure Ireland and Mayo County Council and Roscommon County Council prior to the commencement of construction.

Reason: In the interest of orderly development.

16. A pre-condition survey will be carried out on all public roads and bridges that will be used in connection with the development to record the condition of the public roads in advance of construction commencing. A post-construction survey will also be carried out after the works are completed. The specification and timing of the surveys will be agreed with Mayo County Council, Roscommon County Council and Transport Infrastructure Ireland.

Reason: In the interest of orderly development.

17. Details of Joint Bay design shall be agreed in writing with both Transport Infrastructure Ireland, Mayo County Council and Roscommon County Council prior to the commencement of development.

Reason: In the interest of sustainable development

18. The developer shall facilitate the preservation, recording and protection of archaeological materials or features that may exist within the site. In this regard, the developer shall –

(a) notify the relevant planning authority in writing at least four weeks prior to the commencement of any site operation (including hydrological and geotechnical investigations) relating to the proposed development,

(b) employ a suitably-qualified archaeologist who shall monitor all site investigations and other excavation works, and

(c) provide arrangements, acceptable to the planning authority, for the recording and for the removal of any archaeological material which the authority considers appropriate to remove. In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination.

All archaeological pre-construction investigations shall be carried out in accordance with the details specified with the PECR submitted with the application.

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

19. The developer shall engage a suitably qualified archaeologist to carry out an Underwater Archaeological Impact Assessment (UAIA) of the River Moy crossing (Area of Archaeological Potential 1 in Table 13.7 of Chapter 13 (Archaeology and Cultural Heritage) of the submitted in the PECR in advance of any site preparation works and groundworks, including site investigation works/topsoil stripping/site clearance/dredging and/or construction works. The UAIA shall involve an examination of all development layout/design drawings, completion of documentary/cartographic/photographic research and fieldwork, the latter to include a licensed underwater survey and licensed metal detection survey (consent/licensed as required under the National Monuments Acts).

All archaeological diving should comply with the Health and Safety Authority's Safety, Health and Welfare at Work (Diving) Regulations 2018/2019. A Dive Survey Licence (Section 3 1987 National Monuments Act) and Detection Device consent (Section 2 1987 National Monuments Act) will be required for all of these works. The archaeologist shall prepare a comprehensive report,

including an Archaeological Impact Statement and mitigation strategy, to be submitted for the written agreement of the Planning Authority and the Department in advance of any site preparation works, groundworks and/or construction works. Where archaeological remains are shown to be present, preservation in-situ, establishment of 'buffer zones', preservation by record (archaeological excavation) or archaeological monitoring may be required and mitigatory measures to ensure the preservation and/or recording of archaeological remains shall be included in the UAIA. Any further archaeological mitigation requirements specified by the Planning Authority, following consultation with the Department, shall be complied with by the developer. The Planning Authority and the Department shall be furnished with a final archaeological report describing the results of any subsequent archaeological investigative works and/or monitoring following the completion of all archaeological work on site and the completion of any necessary post-excavation work. All resulting and associated archaeological costs shall be borne by the developer

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

20. Site development and building works shall be carried out only between the hours of 0800 to 2000 Mondays to Fridays inclusive, between 0800 to 1400 hours on Saturdays and not at all on Sundays or public holidays. Deviation from these times will only be allowed in exceptional circumstances where prior written approval has been received from the planning authority.

Reason: In order to safeguard the amenities of property in the vicinity.

21. Noise levels from the proposed extension to the existing substations Moy Ballina and at Tonroe Ballaghadereen, shall not exceed 55 dB(A) rated sound level (corrected sound level for any tonal or impulsive component) at dwellings between 0800 hours and 2200 hours on any day and shall not exceed 45dB(A) at any other time. Procedures for the purpose of determining compliance with

this limit shall be submitted to and agreed with the planning authority prior to commencement of development.

Reason: To protect the residential amenities of property in the vicinity.

22. The delivery of abnormal loads for the construction of the development shall be managed in accordance with a Traffic Management Plan, which shall be submitted to, and agreed in writing with the planning authority prior to commencement of development. This plan shall provide details shall of the road network to be used by construction traffic, including over-sized loads, and detailed arrangements for the protection of bridges, culverts or other structures to be traversed, as may be required. The plan should also contain details of how the developer intends to engage with and notify the local community in advance of the delivery of oversized loads.

Reason: In the interests of public safety and residential amenity

23. (a) All lighting shall be operated in such a manner as to prevent light overspill to areas outside of compounds and works areas.

(b) Prior to the commencement of development, the applicant shall submit a detailed lighting plan for the written agreement of the planning authority. The plan shall include the type, duration, colour of light and direction of all external lighting to be installed within the external areas of the development site.

Reason: In the interests of clarity, and of visual and residential amenity and protection of local biodiversity.

24. Prior to the commencement of development, the applicant shall submit for the written agreement of the planning authority, details of an obstacle warning light scheme which can be visible to night vision equipment.

Reason: in the interest of aviation safety.

25. Prior to the commencement of development, the applicant shall submit an Invasive Species Management Plan to the local authority, which includes details of a pre- construction survey to be carried out. The plan shall include full details of the eradication of such invasive species from the development

site prior to construction or if discovered during construction as soon as is practicably possible.

Reason: In the interest of nature conservation and mitigating ecological damage associated with the development.

26. Trees to be felled and buildings to be demolished shall be examined prior to felling and demolition to determine the presence of bat roosts. Any works shall be in accordance with the TII Guidelines for the Treatment of Bats during the construction of National Road Schemes.

Reason: In the interest of wildlife protection.

27. The developer shall ensure that all plant and machinery used during the works should be thoroughly cleaned and washed before delivery to the site to prevent the spread of hazardous invasive species and pathogens.

Reason: In the interest of the proper planning and sustainable development of the area.

28. Detailed proposals for roadside and field boundary removal and re-instatement must be agreed with the Local Authority prior to the commencement of development. The proposals must provide for habitat creation, in the event that it is deemed not practicable to re-instate roadside /field boundaries. No field or roadside boundaries should be removed where an alternative proposal which would require the active management of invasive alien species exists.

Reason: In the interest of local biodiversity

29. No ground clearance shall be undertaken, and no vegetation shall be cleared during the bird breeding season, unless otherwise agreed with the local authority.

Reason: In the interest of local biodiversity

30. The developer shall pay to the Mayo Co Council a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the planning authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended. The contribution shall be paid prior to commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála to determine the proper application of the terms of the Scheme.

Reason: It is a requirement of the Planning and Development Act 2000, as amended, that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act be applied to the permission.

31 The applicant shall agree with Mayo Council to have a representative from Mayo County Council to supervise works along the route network during the construction phase of the scheme.

Reason: To protect the integrity of the Road Network.

32. The developer shall pay to the Mayo Co Council a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the planning authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended. The contribution shall be paid prior to commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and

the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála to determine the proper application of the terms of the Scheme.

Reason: It is a requirement of the Planning and Development Act 2000, as amended, that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act be applied to the permission.

33. Prior to commencement of development, the developer shall lodge with Roscommon County Council and Mayo County Council a cash deposit, a bond of an insurance company, or other security to secure the provision and satisfactory completion of roads, footpaths, watermains, drains, open space and other services required in connection with the development, coupled with an agreement empowering the local authority to apply such security or part thereof to the satisfactory completion of any part of the development. The form and amount of the security shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to An Bord Pleanála for determination.

Reason: To ensure the satisfactory completion of the development.

Paul Caprani,
Senior Planning Inspector.

19th December 2022.