



North Connacht 110 kV Project

Spring 2021 Update



Delivering a cleaner energy future

The EirGrid Liaison Team are ready to keep the conversation flowing.



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Proper infrastructure is key to Ireland maintaining its international competitiveness. We must maintain an environment that is conducive to doing business – and adequate commercial energy capacity is central to that. IDA Ireland welcomes EirGrid's stated aim of transitioning the electricity sector to low-carbon, renewable energy.

The North Connacht project is an important part of that strategy, providing the necessary electricity infrastructure required by industry across North Connacht through renewable energy means, ensuring security of supply for customers and businesses across Mayo, Sligo and Roscommon.

Martin Shanahan, IDA Ireland CEO.

Who are EirGrid – and what do we do?

EirGrid plans for the future of Ireland's electricity grid and operates it every minute of every day. This includes interconnecting to neighbouring grids and running the wholesale electricity market. We ensure that everyone has power when they need it at the most economic price possible. The grid safely brings power from generators to the ESB network that supplies every home, farm, community and business in Ireland. It also brings power directly to large energy users like high-tech manufacturing and data centres.

As part of our role, we look at ways of improving regional electricity infrastructure to ensure it is able to meet the increasing demand and support the growth of regional industry.

About this update

This update is for stakeholders, communities, landowners and members of the public who want to find out more about this project.

The purpose of this document is to provide information on the North Connacht 110 kV project and to support the public through Step 4 at which stage where exactly we should build is established.

This document provides up-to-date information on the project including what has been learned on the project so far, including the emerging best performing option for the project based on our assessments to date.

Why is the North Connacht project needed?

As of 2020 approximately 40% of the electricity that we currently use in Ireland each year comes from renewable sources. The Government's Climate Action Plan, published in 2019, set the target of achieving 70% of electricity consumption via renewable energy sources by 2030. The North Connacht 110 kV project is one of the key enablers for realising these ambitions.

Renewable Energy North Connacht 110 kV project will contribute to the government's objective of a low-carbon energy future. At present, a large amount of renewable electricity is generated by wind farms in the North Connacht region with more planned over the coming years. The level of renewable generation in the region is far greater than the capacity of the local electricity network.

This means we had to consider ways of improving the electricity infrastructure in the region.

EirGrid is legally obliged to connect those who generate electricity. This means we must develop the grid in response to plans for new electricity generation, such as the aforementioned wind farms.

Economic Benefits

While the North Connacht 110 kV project is being developed primarily to support renewable energy generation in the region, it also serves to facilitate economic growth locally, in the form of new industry. Robust infrastructure is key to Ireland continuing to develop its regional industry across the country and maintaining its international competitiveness.

Key Facts



Competition

Apply downward pressure on the cost of electricity to consumers



Sustainability

Help facilitate Ireland's transition to a low carbon energy future



Security of Supply

Enhanced security of supply for Irish electricity consumers



Economic Benefits

Help support the growth of regional industry

Our original proposal in 2012, was a large scale development to facilitate the level of renewable generation planned at that time. However, by June 2017 the amount of planned renewable generation in the region had dropped by half and we anticipated that the reduced amount of renewable energy could be met through a smaller scale of development. That remains the case and we are now progressing with the North Connacht 110 kV project.

- A proposed new transmission circuit, between two existing substations (Moy substation in County Mayo and Tonroe substation in County Roscommon), and
- An upgrade of approximately 32 kilometres of the existing overhead line between Tonroe and Flagford substations in County Roscommon.

What has happened so far?

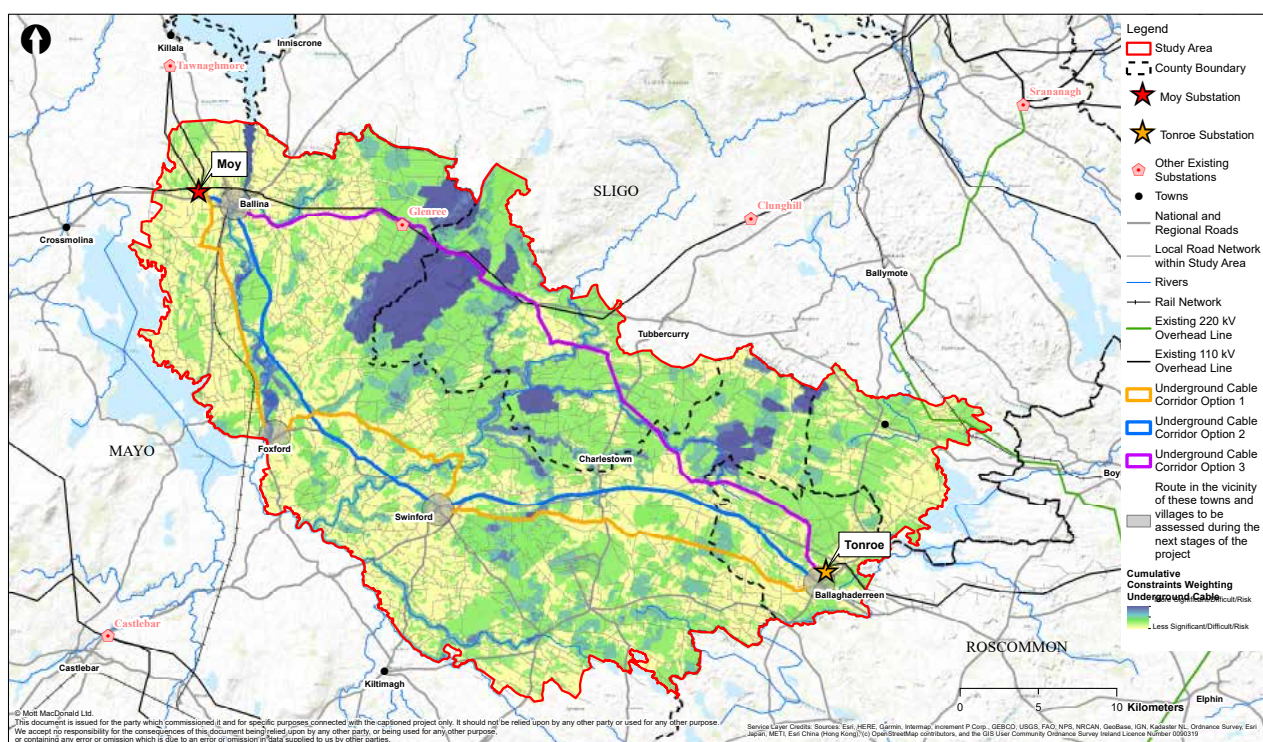
EirGrid have been engaging with the public on the North Connacht 110 kV project since 2017.

In the initial stages of Step 4, the project team completed detailed analysis and identified seven specific corridors within the study area which may be feasible for developing the project. The options included four overhead line corridors and three underground cable corridors.

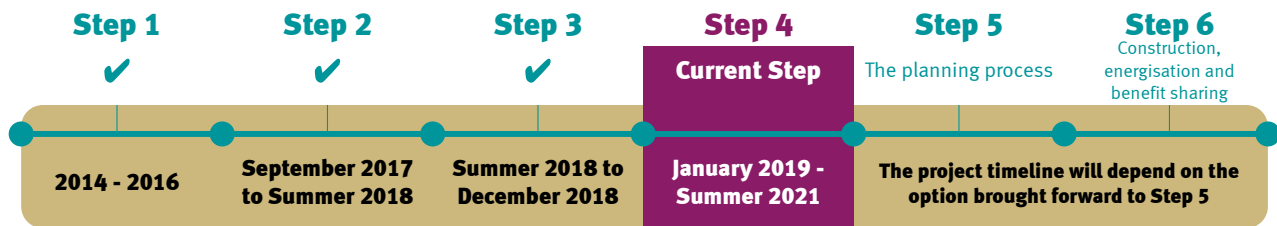
From 14th September to 11th December 2020, EirGrid consulted on the North Connacht 110 kV project. The consultation was originally planned to end on 16th November but was extended to provide further opportunity for people to respond to the consultation, as we sought to address the challenges presented by the COVID-19 pandemic.

Feedback received during the consultation contributes to the overall multi-criteria analysis which is part of the decision-making process that allows EirGrid to identify an emerging best performing option and ultimately a best performing option for the North Connacht 110 kV project.

In 2020, the demand for electricity was twice the amount used in 1990. That demand will increase again – and substantially – in the next ten years! At present, around 40% of electricity used throughout the year comes from renewable generation. The 70% target is a step towards the ultimate goal of achieving net zero carbon emissions by 2050.



Where are we now



Step 4

EirGrid follows a six-step approach to planning electricity projects. This approach guides how we engage and consult with stakeholders and communities, explore all possible options and make more-informed decisions.

The North Connacht project is now moving towards the end of Step 4 of this process. Our objective in this step is to assess exactly where is the most appropriate place to build the project. Public Consultation with stakeholders has had a significant influence throughout the project's development. We have continued to work closely with local people to understand how the project might affect them and how we can locate and design it to reduce local impacts.

Our Step 4 consultation ran from 14th September to 11th December 2020, under which we formally sought feedback on the shortlisted options for the project.

The feedback received during the public consultation was carefully considered alongside our analysis. A total of 654 consultation responses were received.

This included three petitions with a total of 1,464 signatures. Of the respondents, there was a strong preference for underground cable corridor options.

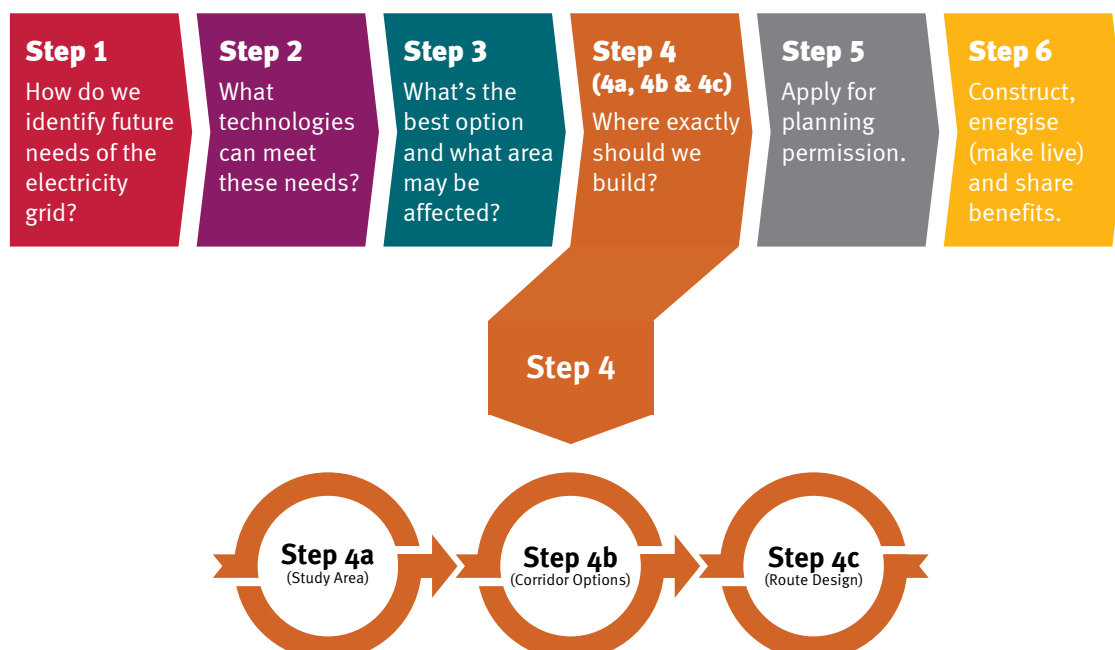
We studied the responses to the consultation which allowed us to understand the concerns people raised, and to assess new information about the proposed options.

Respondents raised several common themes:

- Landscape & Visual
- Health, Safety & EMF
- Community Funding
- Environment, Ecology & Wildlife
- Cultural Heritage
- Traffic & Road Disruption
- Future Development

A report on this consultation was published in February 2021 and can be found at <http://www.eirgridgroup.com/site-files/library/EirGrid/NorthConnacht-Step-4-Consultation-Report.pdf>

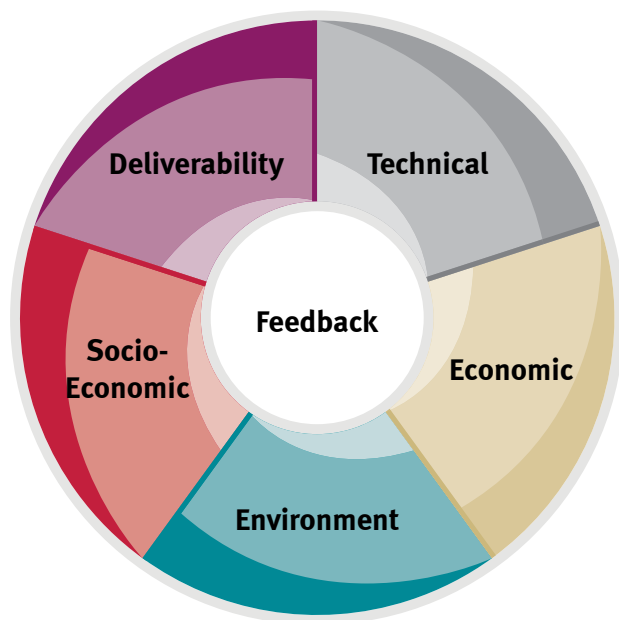
All related documents can be viewed at: <http://www.eirgridgroup.com/NorthConnachtProject>



Assessment Criteria

All 4 Overhead Line Options and 3 Underground Cable options identified have been evaluated against the following multi-criteria assessment;

- Technical performance,
- Economic performance,
- Environmental performance
- Social performance; and
- Deliverability.



Details of the full evaluations completed in identifying an Emerging Best Performing Option can be found in the Step 4B report (http://www.eirgridgroup.com/site-files/library/EirGrid/Step-4B-Development-Option-and-Evaluation-Report_FINAL.pdf), available on the EirGrid website.

Identification of the Emerging Best Performing Option has considered and balanced the five key criteria: technical, economic, environmental, social and deliverability. Having reviewed and considered the outcomes of the assessment process from a multi-criteria perspective, underground cable option 2 has been identified as the Emerging Best Performing Option for the North Connacht 110 kV project.

What happens now?

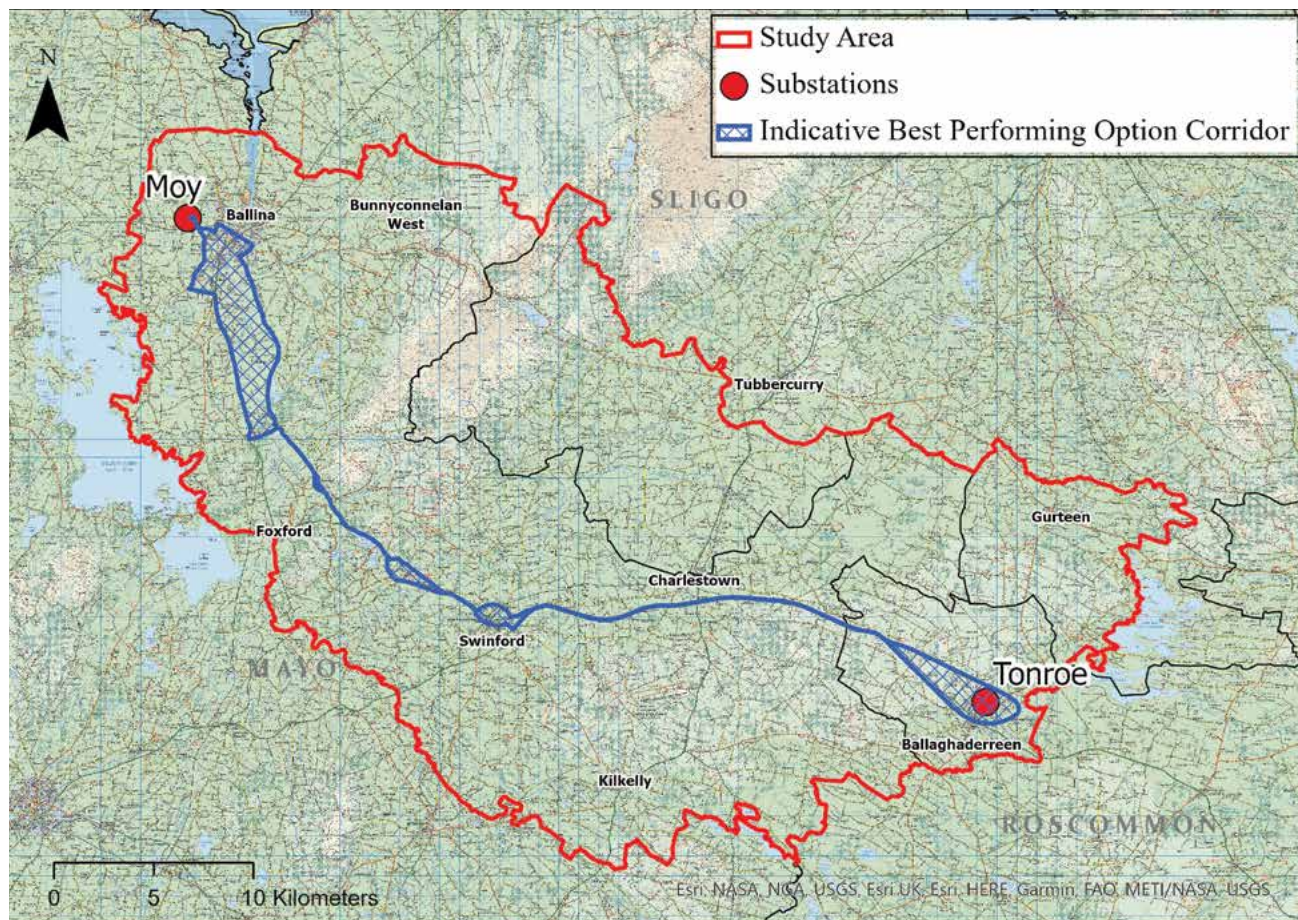
Over the next few months, we need to continue our analysis, undertake on-the-ground surveys and engage with local landowners and stakeholders to establish a specific cable route within that corridor.

While our analysis has shown that Option 2 presents the best opportunities for a cable route, this corridor does present some challenges which may result in temporary disruption to residential amenities and other services on account of potential cable routing through or around various towns such as Ballina, Swinford and Ballaghaderreen, in addition to complex crossings of the River Moy.

In Ballina for example, there may be temporary disruption in order to facilitate a river crossing in or near the town. EirGrid is committed to undertaking additional assessments over the oncoming months to identify feasible cable options inside and outside built up areas of the route which will reduce the temporary disruption during the project construction phase as much as possible. During this time, we will engage with Landowners, local authorities and other stakeholders as we develop a feasible cable route along the Emerging Best Performing Option.

When considering options for the river crossing at Ballina, the eventual route may be a hybrid of Underground Corridor Options 1 & 2. This hybrid is reflected in the buffered section of the Emerging Best Performing Option mapping shown overleaf and is available to view in more detail on our website: <http://www.eirgridgroup.com/NorthConnachtProject>

Underground Cable Route



More detailed maps are available. Contact us if you need one.

EirGrid's preference is to make use of the road network where possible. Discussions with key stakeholders such as Transport Infrastructure Ireland and local authorities are ongoing and will continue over the coming months before we are able to confirm a specific cable route for the project.

Once a route has been identified we will carry this forward to the planning process as the Best Performing Option. In the weeks and months ahead, our liaison team, in line with COVID-19 restrictions, will communicate and engage with those along the cable route options. By working together we can achieve a safe, secure and reliable source of electricity for all. Please don't hesitate to contact our team if you have any questions or queries regarding the project.

Installation of an underground cable route

The installation is carried out in three stages:

1. Preparation of a trench and installation of plastic ducts.
2. Placement of power cable into the ducts and associated works.
3. Jointing of cable sections.

Stage 1 - Preparation of a trench and installation of plastic electricity ducts

Plastic ducting is first laid in the trench (Figure 6). The ducting is bedded on sand and is then surrounded by lean mix concrete. The cables arrive on site in lengths of up to 750m and are required to be joined on site to create a continuous cable from end to end. This takes place in structures known as joint bays which are installed below ground at fixed intervals corresponding to the cable length.

Joint bays are installed at this stage of the project for use subsequently in cable installation and jointing. Public warning tiles are installed over the ducts to alert future construction workers when digging up the road. Note that contact should be made with EirGrid in advance of any proposed construction works in proximity to the underground cables. Once this work is completed, the road is reinstated to the road authority requirements.

Stage 2 - Installation of the cable in the ducts

The construction works associated with this stage are less disruptive than the initial laying of the plastic ducts. The cables are delivered to the site on a cable drum and stand (Figure 7) and are pulled through the ducts with the use of a cable winch.

For each section of cable, two working areas are required, one at each end. The first working area will be required for the cable drum and stand and the other for the motorised winch. Once the cable is installed the cable will be trimmed and sealed within the duct.

Stage 3 - The jointing of the cable connections

The individual sections of cable must be connected in a process called jointing. This work is carried out in containers, called jointing huts, or in a jointing tent by specially trained technicians in a controlled environment to ensure the reliability of each joint.



Community fund



EirGrid will work with a specialist grant-making organisation in order to determine how this fund should be managed and spent. This will ensure that EirGrid is a participant in the process rather than a decision maker. It will allow us to work closely and collaboratively with communities while the fund is facilitated by an independent body. We welcome all and any ideas about how a community fund can best be applied in the community.

During the consultation period, we received many ideas and suggestions from the public on how the locality could benefit from the North Connacht Fund.

Several of the public suggested the community fund should pay for new community facilities or contribute to the upkeep of existing community facilities. A few examples of a received suggestions are as follows;

- a children's playground;
- a community café;
- a community centre or hall;
- a convention centre for hosting events;
- co-working spaces;
- Village Enhancement Scheme;
- Funding conservation areas for wildlife; and
- upkeep on the loop walks.

The final value can only be determined once Step 4 of our process is complete.

We will confirm the full and enhanced value of the scheme and establish a North Connacht Community Forum once the project has received full planning permission. The group will lead and shape the community benefit scheme, the group membership will include local community members from the communities impacted by the project. It will be supported by an independent chairperson and a fund administrator.

Prior to the fund being released EirGrid will publish a set of guidelines and host a launch evening to open the fund for applications. For more info please visit:

www.eirgridgroup.com/about/in-the-community/community-fund/





Step 1 How do we identify the future needs of the electricity grid?

Step 2 What technologies can meet these needs?

Step 3 What's the best option and what area may be affected?

Step 4 Where exactly should we build?

Step 5 The planning process

Step 6 Construction, energisation and benefit sharing

Step 4 At a glance

Recap

At the start of Step 4 the project team completed further analysis and identified seven potential corridors within the study area for developing the project. The options included four overhead line corridors and three underground cable corridors. (See our document North Connacht Brochure – Summer 2020 for more details).

Between September and December 2020 EirGrid ran a wide-ranging public consultation and welcomed comments, queries and general feedback on each of the seven options proposed for the project.

The feedback from this consultation, in addition to further technical, economic, environmental and socio-economic studies, identified underground option 2 as the Emerging Best Performing Option. A small section of underground option 1 is also being brought forward for final studies during Step 4, in order to explore alternative crossings of the River Moy, south of Ballina.

In the weeks and months ahead, our liaison team, in line with COVID-19 restrictions, will look to communicate and engage with those along the cable route options.

How long will this take?

Until the Summer of 2021.

What can you do to find out more?

By working together we can achieve a safe, secure and reliable source of electricity for all. Please don't hesitate to contact our team if you have any questions or queries regarding the project.

If you would like further information on this project, or have any questions or comments, please don't hesitate to get in touch via the contact details listed on this brochure.

What have we decided at the end of this step?

At the end of Step 4 we will have selected a Best Performing Option for the project which will be taken into the planning process in Step 5.

We want to hear from you. If you would like to provide feedback on this project, or find out more information contact:

**+353 (0)1 677 1700, or
northconnachtproject@eirgrid.com**

You can also contact our Community Liaison Officer, Eoghan O'Sullivan on: +353 87 247 7732 or eoghan.osullivan@eirgrid.com or our Agricultural Liaison Officer, Aidan Naughton on: +353 86 172 0156 or aidan.naughton@eirgrid.com



Next steps

In the weeks and months ahead, our liaison team, in line with COVID- 19 restrictions, will look to communicate and engage with those within the corridor of the Emerging Best Performing Option. By working together we can achieve a safe, secure and reliable source of electricity for all.

When complete, this new transmission grid connection will help; secure the supply of electricity in the area, supply the power and infrastructure industry seeks when setting up in any area, and aid Ireland's attempts to hit our climate change targets. The transmission grid which we plan, manage and operate, brings power to every home, business and farm across the country.

Feedback

Feedback from consultation and engagement over the coming months will be considered and analysed in the development and assessment of a specific cable route. Step 4 will conclude with a Step 4C report, confirming the Best Performing Option and associated route for the North Connacht 110 kV project to be taken into Step 5 (Planning).

You can contact us directly via email northconnachtproject@eirgrid.com or call the liaison team members at the start of this brochure.



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