



North Connacht 110 kV Project

Step 4 – Project Update Document

Spring 2021

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Introduction

The North Connacht 110 kV project is currently in the middle of Step 4 of EirGrid's Six Step approach to Grid Development. At the start of Step 4 the project team completed further 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.

We are continuing our assessments of the specific corridor options over the coming months and will confirm a best performing option for the project in the first half of 2021.

We are, however, publishing the Step 4 Consultation Report now and are responding to as many of the issues raised as we are able to at this point in time.

We would like to thank all of the communities, organisations, groups and stakeholders who took the time to take part in the consultation process. We will continue to engage with stakeholders and communities as the project develops.

Who are EirGrid and what do we do?

EirGrid operates and develops the electricity grid in Ireland. The electricity grid brings power from where it is generated to the ESB distribution network – which in turn supplies every home, farm and small business in Ireland. The grid also directly powers businesses and industry that use large amounts of electricity. EirGrid ensures that electricity is always available, at the most economic price possible – today, tomorrow and for decades to come.

Electricity can be generated from clean and renewable sources like wind and solar power. These will replace polluting sources of energy like coal and oil. Because of this, electricity will increasingly be used for more purposes, like transport and heating. To prepare for this, the electricity grid must be made stronger and more flexible. It will need to carry more power, with most of this power coming from clean, renewable sources. This change will require significant amounts of new grid infrastructure - such as underground cables, pylons and substations.

What is the North Connacht Project?

The North Connacht 110 kV project is a proposal to develop the transmission grid in the North Connacht region. The start point will be at Moy substation near Ballina, Co. Mayo. The end point will be at Tonroe substation near Ballaghaderreen, Co. Roscommon.

The development will either be a 110 kV overhead line or underground cable. If an underground cable is used, most of the route will be contained within the existing road network. If an overhead line is used, most of the line will be carried on twin wooden pole sets. Either technology option will also require

32km of upgrade works to the existing overhead 110 kV line from Tonroe to Flagford (Carrick-on-Shannon). The proposed upgrade works do not require additional overhead lines or infrastructure, but a replacement of some of the existing structures and cabling. Similar upgrade works are being carried out across the country on existing lines.

Why is the project needed and what are the benefits?

The North Connacht 110 kV project will facilitate the transport of electricity across the region. It will also ensure security of supply for customers and provide the robust electricity infrastructure required by industry across North Connacht. This project supports plans to boost business and investment in the region.

The 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 have to look at ways of improving the electricity infrastructure. Under our licence EirGrid is legally obliged to connect those who generate electricity, which means we must develop the grid in response to plans for new electricity generation.

In terms of addressing future needs, it is worth noting that as at 2020 just 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.

Grid Development Process

EirGrid follows a six step approach to grid development, as outlined in Figure 2 below. This approach facilitates engagement and consultation with stakeholders and the public, which helps us to fully explore the options, and make more informed decisions. Our approach is outlined in more detail in EirGrid’s *Have Your Say* document. To date we have completed Steps 1 - 3 of the process and the resulting documentation can be viewed on the [EirGrid website](#).



Figure 1: Framework for Grid Development



At EirGrid we apply 5 assessment criteria to project decision making. The assessment criteria are:

- deliverability;
- technical;
- economic;
- environment; and
- socio-economic.

Feedback gathered during consultations influences the assessment decision making process.

Figure 2: Grid Development Assessment Criteria

Step 4 Project Update

EirGrid follows a six-step approach to developing the grid. The North Connacht 110 kV project is currently in the middle of Step 4. Our objective in Step 4 is to work through our assessment process to establish exactly where the most appropriate place to build the project is. At this step stakeholder feedback can have a significant influence on where exactly we build. We work closely with local people who may be directly affected, in order to understand how the project could impact them and how we can locate and design it to minimise this impact. Our objective is to collaborate, and we encourage people to get involved.

EirGrid have been engaging with the public on the North Connacht 110 kV project since 2017. Ahead of our most recent consultation (and before COVID-19 restrictions came into effect), we completed:

- a number of meetings with local Councils,
- walk in clinics at our office in Castlebar office,
- information stands at local marts across the study area,
- advertised public open days with our mobile information unit in towns across the study area.

In addition to liaising with the public at open days and events across the various project phases, Mayo, Sligo and Roscommon county councils and their respective municipal district councils, received project briefings from EirGrid at each stage of the project. Ahead of the recent Step 4 consultation we ran a Media campaign: “Upgrading Lines – Upgrading Lives” within the community, advertising on radio and in the regional press.

Consultation on Project Options

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. With the extension, we also included additional advertising, postal drops, webinars etc. adding additional channels for people to provide feedback. This consultation requested feedback on the proposed technology and corridor options.

During the summer of 2020, EirGrid invited people living in the study area to complete a short survey to help guide our communication with residents of the study area. Based on a comprehensive analysis of the responses, EirGrid provided a mix of traditional engagement methods and innovative, online methods. Methods used during the consultation process were:

- virtual project exhibitions,
- telephone clinics,
- project updates by mailing list,
- five project webinars in October and December 2020,

- distribution of flyers, on three occasions, to the 41,000 registered addresses within the project study area,
- In-person meetings with our liaison staff (as restrictions allowed).

EirGrid also developed a specific consultation brochure and included detailed reports and project information on our website. Staff from the EirGrid liaison team were available for contact throughout the consultation period and remain available to discuss the project, via phone calls and emails, seven days a week.

Due to the COVID-19 pandemic and the need to maintain social distancing, there were no in-person events in 2020. However, there was some face to face engagement with some stakeholders. To mitigate the necessary reduction in face to face engagement, additional engagement was undertaken via other routes such as online webinars and a virtual exhibition space.

Concern was expressed by some respondents regarding the communication and engagement methods deployed across the project. It was our plan to consult on the project through March, April and May of 2020. The COVID-19 pandemic forced us to postpone all planned project consultation for the first half of the year. Nevertheless, cognisant of the project benefits, namely supporting plans for industry and investment in the region, and the government led ambitious 2030 renewable energy targets, we took the necessary decision to begin our consultation on this vital project for the region.

The consultation gave us an opportunity to accelerate our innovation in the public engagement space. We trialled many digital solutions including webinars, digital workshops, virtual exhibitions and microsites in addition to maintaining as many traditional engagement methods as possible. This resulted in higher levels of engagement than we had previously seen on many projects, pre the pandemic. It is worth noting that many other public consultations continued across industry during the pandemic without interruption.

In total, our consultation received feedback from 654 respondents, some on multiple occasions. Feedback was received in hardcover format and online via the EirGrid website. Details of the feedback has been captured in the [Step 4 Consultation Report](#). This feedback will play a part in the overall multi-criteria analysis which is part of the decision-making process that allows EirGrid to identify the best performing option for the North Connacht 110 kV project.

We would like to thank all the communities, organisations, groups and individuals who took the time to take part in the consultation process. The consultation provided a lot of useful information about the corridors and technology options which had been identified for the project. The feedback ranged significantly from general commentary on the project to a more detailed, localised level of information. Feedback was captured in a clear manner through comments submitted by stakeholders expressing their concern and their support for the project as well as suggestions for additional work they would like us to undertake as part of our Step 4 activities.

Remaining Activities in Step 4

At this stage, no decision has been made on the best performing option for the North Connacht 110 kV project. The project team has collated all stakeholder views into a Public Consultation report. This report, coupled with the results from further studies, will allow us to make a well-informed decision on the emerging best performing corridor and technology option for the project.

We are continuing with our assessments of the Step 4 project options with a focus on further technical studies for the underground options. Support for additional work to assess underground technology in more detail was communicated to us over the past months. A majority of respondents to our recent public consultation supported underground technology as the most appropriate solution for the North Connacht 110 kV project. Feedback was also received from both local and national elected representatives also recommending that further consideration should be given to the three underground routes presented in the recent public consultation. Further work, namely cable integration studies, are required before a final decision can be made on the best performing option to take forward to Step 5. EirGrid will publish a Step 4B report containing an emerging best performing option for the project in March 2021. We expect to be in a position to make the decision on a best performing option towards the middle of 2021 and will issue a further update at that time.

Outlook for Step 5

Step 5 will commence on completion of Step 4, with an environmental assessment of the confirmed best performing project option being undertaken and the preparation of the consent application file for submission to the consenting authorities. At this time, we anticipate we will submit a planning application to the planning authority at the end of 2021. As this project develops, we will continue to be available to engage with stakeholders and communities. On confirmation of the options being progressed, we will set up a North Connacht stakeholder reference group/community forum, so we can work together with local communities to reduce impacts and maximise benefits for those living and working in the area.

Consultation Themes

The [Step 4 Consultation Report](#) contains information on all responses submitted and can be reviewed on the project website. Individual respondents to the consultation emphasised areas of particular interest to them. The project team has grouped the feedback received into seven themes. It is hoped that the following sections will address some of the queries and concerns received from stakeholders and communities. These themes will be reviewed as the project develops.

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

Landscape & Visual

Concerns were raised by respondents in relation to the effect of the project on an area's landscape character and its visual impact. Respondents felt that the overhead line options in particular would be detrimental to the natural beauty of the landscape. A few of these respondents expressed specific concerns about the impact of the project on landscapes in the Moy valley, Ox mountains, and areas surrounding Bonniconlon, Glenree and Attymass.

We continue to consider these concerns in our assessments and understand the importance of preserving the character of local areas in which we develop the project. EirGrid is committed to the sustainable development of the electricity grid which requires the landscape to be protected to the greatest extent possible.

Should an overhead line option emerge as the best performing option, EirGrid will carry out a Landscape Impact Assessment. This will include photomontages of the proposed line set in the existing landscape. The Impact Assessment will recommend mitigation or avoidance measures where appropriate. This assessment will be available to the public as part of the planning application. It can be largely assumed that should an underground cable emerge as the best performing option for the project, there would be minor visual changes to the landscape arising from a cable installation along any of the proposed routes.

Health, Safety & EMF

Over the course of the Step 4 consultation, we received submissions about the potential impact of the proposals on human health. Personal health is a deeply sensitive issue and EirGrid is committed to engaging with residents on this topic. Specific concerns were raised by several residents in relation to EMFs (Electromagnetic Fields) emitted by transmission infrastructure, particular overhead lines.

It is important to note that the emitted transmissions are at an extremely low frequency and are at the non-ionising end of the electromagnetic spectrum. Almost 5,000 km of overhead power lines operated at 110 kV are present on the existing transmission system across Ireland today, including across Connacht. EirGrid operates these power lines in accordance with stringent safety recommendations which are made by national and international agencies. Several of these recommendations come from the International Commission for Non-Ionizing Radiation Protection ([ICNIRP](#)). This is an independent body, funded by public health authorities around the world. ICNIRP has investigated the safety of EMFs for decades and provides guidance on safe levels of exposure. The Department of Environment, Climate and Communications recommendation is that ICNIRP guidelines are followed to protect the health of the public.

EirGrid want to assure communities that the North Connacht 110 kV project, regardless of the best performing option taken forward to the planning process, will be designed to make sure that public exposure to electromagnetic fields is compliant with these guidelines.

In addition, EirGrid is a member of CIGRE, the International Council on Large Electric Systems, and ENTSO-E, the European Network of Transmission System Operators, which thereby ensures that EirGrid has regard to, and follows, current international best practice in the planning and development of the Irish electricity transmission system.

EirGrid is satisfied from the totality of studies, the views of international authoritative agencies and international experience of best practice in transmission system development that the balance of evidence is that transmission infrastructure does not have any adverse effect on human health or animal health. Further information on the guidelines which EirGrid adhere to are contained in our brochure “The Electricity Grid and Your Health” which can be found on the [EirGrid website](#).

Community Funding

Members of the public expressed interest in the Community Fund and were keen to understand a bit more about the fund value and process by which it is administered. Other respondents were critical of EirGrid having a Community Fund because they feel it is a ‘bribe’.

In 2012, the Irish Government recommended that EirGrid should provide a direct benefit to surrounding communities when it builds new transmission infrastructure. EirGrid welcomed this recommendation. Therefore, EirGrid developed a Community Support Fund policy in 2014. This policy is updated on a

regular basis to reflect EirGrid's evolving work in developing transmission infrastructure across the entire country.

In line with our policy to help local communities' benefit from the development, we will deliver a community fund for the North Connacht 110 kV project at the same time as the construction programme. Our policy is to focus on projects for community infrastructure, education and sustainability. We will consider other options put forward by the community, which is why we asked for some initial suggestions as part of the Step 4 consultation process.

EirGrid will work with a specialist grant making organisation to determine how the fund should be managed and spent. We believe this is the fairest possible approach and will ensure that EirGrid is a participant in the process rather than a decision-maker. It also allows us to work closely and collaboratively with communities while the fund is facilitated by an independent body.

The aim of the Community Fund is to support local projects in the communities near new infrastructure. The technology type used and the length of the overall project, both of which have yet to be established, will determine the size of the community fund. On confirmation of the best performing option being progressed for project, we will set up a North Connacht Community Forum so that we can work together with local communities to reduce impacts and maximise benefits for those living and working in the area.

Environment, Ecology & Wildlife

Some respondents to the consultation shared concern about potential impacts on local ecology and wildlife, biodiversity and protected species, habitat loss and ancient and protected woodlands. Some members of the public also raised concern about the need for Environmental Impact Assessments.

Regarding the route selection process for a line or cable, the avoidance of significant effects on the local area, and on biodiversity, is a key factor for consideration at this stage of the project.

Survey work for the North Connacht 110 kV project has been going since 2019, focusing on:

- Designated sites, including the River Moy Special Area of Conservation (SAC; site code 2298), Lough Hoe Bog SAC (site code 633), Cloongoonagh Bog SAC (site code 1657) the Ox Mountain Bogs SAC (site code 2006), Cloonakillina Lough SAC/pnha (site code 899), Lough Nabrickkeagh Bog SAC (site code 634), Lough Gara Special Protectio Area (SPA; site code 4048), Lough Conn and Lough Cullin SPA (site code 4228), Killala Bay/Moy Estuary SPA (site code 4036),
- Sensitive designated habitats (including peatland) outside designated sites,
- Nesting birds, particularly birds of medium and high conservation concern, including ground-nesting birds such as waders,
- Wintering and breeding birds in wetlands in the wider hinterland,
- Invasive and protected plant and animal species,

- Other protected species and habitats, including both European protected species such as bats, otter, white-clawed crayfish, freshwater pearl mussel, and marsh fritillary, and nationally protected mammal, reptile, amphibian, and invertebrate species,
- Local biodiversity areas identified by local authorities,
- Watercourses with fisheries value,
- Habitats outside designated sites which are not currently subject to protection, including hedgerows, ancient and long-established woodlands, semi-natural grasslands, and wetlands.

Consultation with relevant prescribed and non-prescribed bodies including National Parks & Wildlife Service (NPWS), Inland Fisheries Ireland, and the Irish Hen Harrier Winter Survey will continue through Steps 4 and 5, as will a review of relevant datasets. Relevant datasets include those hosted online by the NPWS, the National Biodiversity Data Centre, and the Environmental Protection Agency. Reporting on potential effects to European sites, will fulfil requirements under Article 6(3) of the EU Habitats Directive and related case law, including reliance on best scientific knowledge.

Biodiversity enhancement will be considered during Step 5 of the project, in consultation with third parties where appropriate, noting submissions made regarding tree-planting and specific sites including Lough Brohly, the Arkill area, and bog lands near Ballaghaderreen.

At EirGrid, environmental surveys occur throughout the project's development with detailed environmental assessments taking place in Step 5 when we complete and prepare the consent application file for submission to the consenting authorities. Respondents should know that the reduction, minimisation and mitigation of any negative effect of the project is paramount to EirGrid's planning and design and continues to be central to the project's development.

Cultural Heritage

Respondents to the Step 4 consultation expressed concern that the heritage of their locality would be negatively impacted by construction work related to the project. Members of the public highlighted various historical features which they feel may be negatively impacted by the project, including ringforts, standing stones, crannogs and Ogham stones.

It is important to note that extensive surveys will be completed by the project team before any decision is taken on a specific route option. This is to ensure the project develops in a manner sensitive to the local historical heritage and with regard to EirGrid's Cultural Heritage Guidelines for Electricity Transmission Projects available on the [EirGrid website](#).

EirGrid will include a Cultural Heritage Impact Assessment of the route with the planning application. This Impact Assessment will examine archaeological, historical and architectural features along the route that may be impacted by the proposed development and will recommend suitable mitigation or avoidance measures. The Cultural Heritage Impact Assessment will be available to the public as part of the planning application.

Traffic & Road Disruption

Traffic impacts and resulting disruption to the road network was raised as a concern by some respondents. The development of a strategic infrastructure such as the North Connacht 110 kV project will always give rise to some impacts during construction. However, EirGrid will mitigate significant impacts, through careful site and route selection and design and by working closely and iteratively with the local community and stakeholders. We can confirm that once operational, the North Connacht 110 kV project will have no noticeable impact on traffic management in the area.

It is important to note that any interruptions to normal traffic volumes during will be time-limited and temporary. Traffic measures will be managed proactively by means of construction plans, traffic management plans and local public engagement during the construction phase.

The relative levels of disruption with each option identified in Step 4 will be assessed and considered in the evaluation process. Should underground technology emerge as the best performing option, the cables for the project would be routed underground. Construction of the route along roadways would be carried out in sections. This minimises disruption to local communities and road users through which the cables are routed. Ducts would be laid in the roads and open trenches kept to a minimum. Trenches would be backfilled and reinstated to road authority requirements following completion of works.

Future Development

Concerns were raised by some respondents about the potential to upgrade the project in the future, or the need for further projects. The North Connacht project is to be constructed and operated at 110 kV. There will be no opportunity to increase the size of the circuit when it is completed.

A small number of respondents suggested upgrading the existing powerlines. The existing transmission network in Connacht has been upgraded to the best possible capacity, except for the powerline between Moy and Glenree substations which is planned to be upgraded in the near future. No further capacity can be released from the existing powerlines.

The need for possible further circuits in Connacht cannot be ruled out. Economic activity in the area may well drive a requirement for additional capacity to support it. Equally, harnessing the renewable resource in the west of Ireland to help meet the country's climate action plan could require more network capacity. Any proposal to strengthen the network with additional infrastructure will not be done without also allowing people to have their say in the proposal, and it will be via a completely new and separate project to the North Connacht 110 kV project. Our six-step process for developing the grid relies on stakeholders' input in the process, to make sure the drivers for and the need for network development, are understood to ensure all options to meet the need are taken on board.

Ongoing Engagement

EirGrid will continue to engage with impacted communities throughout the planning and construction phases of the project. EirGrid plans to establish a stakeholder reference group/community forum to ensure communities in the area of the route for whichever option is taken forward are represented.

Moving forward, it is our intention to publish a Step 4B report, which will confirm the emerging best performing option (overhead line or underground cable option) in March 2021. This will be accompanied by further engagement with stakeholders and communities.

Once the Step 4B report is published we will conduct detailed analysis on that specific corridor in order to determine an exact route for the project. This route will be outlined in greater detail in a Step 4C report which will be published towards the middle of 2021. The Step C report will confirm the best performing option to be taken into Step 5 (planning process). At present, we expect to lodge a planning application at the end of 2021.

We will always remain available to discuss the project with the public and stakeholders and will clearly outline the process that follows and how the public can feed into it. If you would like to know more about the project or sign up for regular updates, please contact our Community Liaison Officer Eoghan O' Sullivan on 087 247 7732 or Agricultural Liaison Officer Aidan Naughton on 086 172 0156.

Alternatively, you can email the project team via northconnachtproject@eirgrid.com.

If you would like to be included on our mailing list for North Connacht 110 kV project updates – send an email request to northconnachtproject@eirgrid.com stating “Subscribe me to updates”. By subscribing, you are giving us permission to store your name and email address for the purposes of issuing updates to you. You can unsubscribe from receiving updates at any time by emailing us regarding same. In addition to a dedicated community liaison team being available to engage with the local community, there is also a wide range of previous documentation and studies on the project available for review on the [EirGrid website](#).