



**APPENDIX A**

**PCI PUBLIC INFORMATION LEAFLET**

**(MAY 2015)**





Part-funded by The EU-TEN-E Initiative

# Project of Common Interest

Cross-Border Electricity Transmission Scheme  
The North-South 400kV Interconnection Development



*A Trans-European Energy Infrastructure Project*



[www.eirgrid.com](http://www.eirgrid.com)

# INTRODUCTION

EirGrid and System Operator Northern Ireland (SONI) are jointly planning a major cross-border electricity transmission scheme.

This scheme is a 400kV overhead line linking a substation in Woodland, County Meath with a new substation in Turleenan, County Tyrone and will provide a second high-capacity transmission line between Ireland and Northern Ireland. The proposed interconnector will be approximately 138km long inclusive of approximately 34km located in Northern Ireland.

EirGrid will apply for planning approval for that part of the scheme located in Ireland called the North-South 400kV Interconnection Development.

The scheme will more than double the power transfer capacity between North and South, improving the efficiency of the all-island electricity market.

It will enhance the security of the electricity supply throughout Ireland which is essential for economic growth, the creation of jobs and improving the standard of living and quality of life for all.

It will also enable more renewable energy to be connected to the network, reducing our production of greenhouse gasses and our reliance on imported fossil fuels.



# HISTORY OF THE PROJECT

The proposed development was first launched in Ireland in autumn 2007 and an application for planning approval was submitted to An Bord Pleanála in December 2009. That application was withdrawn in July 2010.

Following the withdrawal of the application, EirGrid undertook a comprehensive re-evaluation of the project. This involved a thorough re-examination of the previous application, including issues raised during the previous application process.

In May 2011, EirGrid published its interim findings in a Preliminary Re-evaluation Report, which was subject to consultation. The consultation requested feedback on the content and findings of the report and included engagement with the public and landowners on the indicative line route.

A separate review process was undertaken by the Department of Communications, Energy and Natural Resources, under which an International Expert Commission reported on the case for, and cost of, undergrounding the North-South 400kV Interconnection Development.

This report was published in January 2012 and recommended that the interconnector should not be put underground using Alternating Current cable. The report also stated that if undergrounding is to be used, the best technology option currently available is Direct Current.

The report estimated that using this technology would cost up to three times more than the standard overhead line solution.

Following a period of consultation, a Government Policy Statement on the Strategic Importance of Transmission and Other Energy Infrastructure was published in July 2012. This policy statement recognised the interconnector project as one of a group that are “vital developments for the regions and for the economy and society as a whole.”

In April 2013, EirGrid published a Final Re-evaluation Report, which provided a comprehensive review of the project and was the subject of a six-week period of public engagement.

The resulting feedback was considered by the project team and formed part of a Preferred Project Solution Report published two months later. This report documented the line design process and provided detailed information on the line route and there was an eight-week period of public consultation.







In December 2013 EirGrid published its proposed line route for the project. This route took account of requests from stakeholders - mostly landowners - for localised changes to the line design. These were evaluated in accordance with the criteria set out in the Preferred Project Solution Report and many were accommodated.

In January 2014 the Government appointed an Independent Expert Panel to review EirGrid's evaluation of underground routes for the Grid West and Grid Link projects. In addition, the panel was asked to provide an opinion on "the compatibility of the methodologies to be employed on the Grid Link and Grid West projects with what has already been done on the North South Transmission Line project."

In July 2014 the panel provided its opinion, that the work completed to date on the North-South 400kV Interconnection Development is in all material respects compatible with the methodologies now being employed on the Grid West and Grid Link projects.

In March 2015, EirGrid published a final line design proposal for the project. The December 2013 line route had been reviewed and resulted in some of the proposed tower locations being re-positioned along the alignment. The alignment itself did not change. The revised proposed line route was published on the project website. This will now form the basis of an application for planning approval that will be submitted to An Bord Pleanála.



# EU REGULATION 347/2013

In October 2013, the European Commission designated the overall proposed cross-border interconnector as a Project of Common Interest (PCI).

This is a significant development and means the project is subject to a new EU regulation for trans-European energy infrastructure, EU 347/2013 which entered into force on 1 June 2013. This establishes guidelines for trans-European energy infrastructure and includes a more efficient permit granting process for energy infrastructure projects designated as PCIs.

The background to this regulation is the strategy of the European Union to modernise and expand Europe's energy infrastructure and to connect networks across borders to meet its energy policy objectives of competitiveness, sustainability and security of supply. Relevant European Union energy policy objectives include completing the internal market in energy, guaranteeing security of supply, in particular for gas and oil, reducing greenhouse gas emissions, increasing the share of renewable energy in final energy consumption to 20% and achieving a 20% increase in energy efficiency by 2020 whereby energy efficiency gains may contribute to reducing the need for construction of new infrastructures.

**Reliable, integrated energy networks are considered crucial for the European Union's economic strategy.**

Tackling the challenges of low-carbon electricity generation while maintaining high standards of security of supply is far cheaper if done at a trans-European level through integrated markets, for which adequate infrastructures are essential, compared to the overall cost of fragmented national policies.

The European Union estimates that up to 2020 about €200bn of investment is needed to upgrade and expand European energy networks.

The regulation identifies 12 strategic trans-European priority corridors and areas covering electricity and gas networks, as well as oil and carbon dioxide transport infrastructure, for which European Union action is needed for the achievement of its energy and climate policy objectives.

The regulation provides for the designation of PCIs for these corridors and areas which are proposed by twelve regional groups. Project promoters can apply to the regional groups for their projects to be included. They may also have access to financial support from the Connecting Europe Facility, under which a €5.85 billion budget has been allocated to trans-European energy infrastructure for the period 2014-20. The European Commission ultimately adopts the European Union list of PCIs.

The first set of PCIs is an important step towards the improved integration of member states' networks and making sure no country remains isolated. The list of PCIs will be updated every two years with the aim to integrate newly needed projects and remove obsolete ones.





The regulation seeks to streamline and accelerate the permit granting processes for PCIs, as well as providing for closer cooperation and enhanced public participation. The regulation establishes that PCIs are necessary to take forward European Union energy networks policy and should be allocated the status of the highest national significance possible and be treated as such in permit granting processes. As authorisation for a project may require several consents or permits, the regulation requires each member state to designate a competent authority to integrate or coordinate the permit granting processes. Ireland designated An Bord Pleanála as the competent authority under Regulation 347/2013.

The regulation further provides that all parties involved in the permit granting process are required to follow its principles for public participation.

## **Status as a PCI**

The North-South 400kV Interconnection Development was one of 248 projects identified by the European Commission on the 14th October 2013, in the first list of PCIs. The majority of the PCIs are in the field of electricity, mainly transmission lines, and there are 14 storage projects and two smart grid projects. For a project to be awarded PCI status, it has to have significant benefits for at least two member states; contribute to market integration and further competition; enhance security of supply, and reduce CO2 emissions. The North-South 400kV Interconnection Development meets these criteria.

The designation of the North-South 400kV Interconnection Development establishes the necessity of the project from an energy policy perspective, without prejudice to the exact location, routing or technology of the project. EirGrid and all authorities concerned are required to ensure that the most rapid treatment legally possible is given to the project. As a PCI it is allocated the status of the highest national significance possible and should be treated as such in permit granting processes.

Also for the purposes of the Habitats and Water Framework Directives, the project is considered as being of public interest from an energy policy perspective, and may be considered as being of overriding public interest, provided that all the conditions set out in the directives are fulfilled.

As a PCI, the North-South 400kV Interconnection Development will be subject to the rules and requirements for the permit granting process set out in the regulation. An Bord Pleanála as competent authority has also published a Manual of Permit Granting Process Procedure as required by the regulation.

## Benefits and Obligations from its Status as a PCI

The timely implementation of the PCIs is a priority for the EU and there are strict requirements on the permit granting process.

These include binding time limits for the entire permit process (a maximum of three and a half years); the establishment of a national 'one-stop-shop' for permit granting; early and effective public consultations; and a requirement for the member states to streamline environmental assessment procedures.

These requirements are aimed at accelerating the permitting process, whilst respecting the standards of European Union environmental law.

As a PCI, the project will benefit from a number of advantages. These include:

- Accelerated planning and permit granting procedures;
- A single national competent authority will act as a one-stop-shop for permit granting procedures. As noted in Ireland, An Bord Pleanála fulfils this role;
- Less administrative costs for the project promoters and authorities due to a more streamlined environmental assessment procedure, whilst respecting the requirements of European Union law;
- Increased transparency and improved public participation;
- Increased visibility and attractiveness for investors thanks to an enhanced regulatory framework where costs are allocated to the countries that benefit most from a completed project;
- Possibility to receive financial support under the Connecting Europe Facility which will play a key role in leveraging the necessary private and public funding.

The regulation imposes obligations on An Bord Pleanála as the competent authority and also on other permitting authorities. As promoter of the North-South 400kV Interconnection Development, EirGrid is subject to a number of obligations and requirements under the PCI process. EirGrid must:

- Draw up an implementation plan for the project;
- Provide a reasonably detailed outline of the project when the PCI process is being initiated;
- Have regard to the principles underlying public participation in the process;
- Draw up and submit a Concept for Public Participation to An Bord Pleanála;
- Ensure the completeness and adequate quality of the application file;
- Ensure that all required information is made available promptly to the relevant authorities to ensure that the time limits set can be met;

- Establish, maintain and update a project website;
- Co-operate fully with An Bord Pleanála to meet deadlines and comply with the detailed schedule for the permit granting process;
- Submit an annual report for the project to An Bord Pleanála.

The European Commission will also monitor closely the implementation of the permit granting measures and, subject to planning consent, the construction of the project.

The Manual of Permit Granting Process Procedures states that it will establish a PCI Unit to administer the PCI process separate from its Strategic Infrastructure or Planning Appeals Units. It further states that this PCI Unit will be responsible for the co-ordination of the various consents and collaboration with the consent-giving bodies, and other competent authorities.

Consent is required for the North-South 400kV Interconnector Project as a Strategic Infrastructure Project and the application will be lodged with both the PCI unit and the Strategic Infrastructure Unit of An Bord Pleanála.

A separate parallel consenting process is currently being undertaken in Northern Ireland in respect of that portion of the overall project within that jurisdiction. This is being administered through the Department of the Environment in Northern Ireland. The transitional provisions in Article 19 of Regulation (EU) No. 347/2013 apply to that part of the interconnector within Northern Ireland which means that permit granting procedures under the regulation do not apply to the portion of the project there.





For the purposes of the Regulation, the permit granting process is divided into two stages: the pre-application procedure and statutory permit granting procedure. The pre-application procedure covers the period between the start of the permit granting process and the acceptance of the submitted application file by An Bord Pleanála (this period is to take place within an indicative period of two years). The statutory permit granting procedure covers the period from the date of acceptance of the submitted application file until the comprehensive decision is taken (the period for which shall not exceed one year and six months).

Therefore, prior to lodging the strategic infrastructure application with An Bord Pleanála, EirGrid is required to fulfil certain pre-application procedure obligations under Regulation 347/2013.

In fulfilment of this, EirGrid notified An Bord Pleanála on the 3rd June 2014 and provided a reasonably detailed outline of the project. This was acknowledged by An Bord Pleanála on the 2nd July 2014 which established the start of the permit granting for the purposes of the regulation.

EirGrid submitted a Concept for Public Participation to An Bord Pleanála on the 31st July 2014. This report, amongst other things, referred to the past consultations which have been carried out. On the 10th September 2014, An Bord Pleanála decided to modify the concept, which included a requirement to publish this information leaflet.

An Bord Pleanála considers that all submissions received as part of the public consultation process should be published on the project website unless the submitter provides reasonable reasons for not doing so. In accordance with same, EirGrid will publish submissions on the project website. All submissions will be published in compliance with the Data Protection Acts 1998 and 2003.

All relevant documentation relating to the PCI process and the North-South 400kV Interconnection Development will be posted to the EirGrid website.

**Stage 1 - Indicative Date for Lodgement of Application  
Second Week of June 2015**

Public notified by newspaper + site notices stating that the application including the plans, EIS and NIS will be available to the public. The application will be available for inspection (or purchase on payment of a fee not exceeding the reasonable cost of making a copy) from the date of lodgement of the application

**Stage 2 - Statutory Public Consultation Phase**

Written submissions/observations will be invited from the public on the implications of proper planning and sustainable development, the likely effects on the environment and the likely effects on a European site if the proposed development is carried out

**Stage 3 - Oral Hearing**

An oral hearing will be held (working assumption).  
The public can address the oral hearing and participate in the process

**Stage 4 - Decision on the Application by the SID Unit of  
An Bord Pleanála under the Planning and Development Acts**

**Stage 5 - Comprehensive Decision of An Bord Pleanála PCI Unit**

Following the decision of An Bord Pleanála at Stage 4

**Stage 6 - In the Event of Approval**

Construction and commissioning of the project



Part-funded by The EU-TEN-E Initiative

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## **APPENDIX B**

### **PUBLIC CONSULTATION REPORT (2008)**





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ASSOCIATES

*Business and Environmental Communications Ltd.*

# Public Consultation Report

(Prepared for EirGrid by RPS/MMA)

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## GLOSSARY OF TERMS

EIA – Environmental Impact Assessment

EIS – Environmental Impact Statement

EMF – Electric & Magnetic Fields

ESBI – Electricity Supply Board International

FAQ – Frequently Asked Questions

FF – Fianna Fáil

FG – Fine Gael

MEP – Member of European Parliament

MMA – Mary Murphy Associates

NIE – Northern Ireland Electricity

SF – Sinn Féin

TD – Teachta Dála (Members of parliament)

# 1 INTRODUCTION

## 1.1 EXECUTIVE SUMMARY

This report, which has been prepared by RPS and MMA on behalf of EirGrid, is an account of the public consultation exercises undertaken for the EirGrid 400kV Meath-Cavan and Cavan-Tyrone power line projects.

It covers consultation exercises that have occurred from September 2007 to date as part of Phase 1 of this project, namely the Strategic Constraints Scoping Phase.

The consultation aspect of the project has been diverse, with over 11,000 members of the public engaging with the Project Team (as of March 2008).

### 1.1.1 Project Background

EirGrid is planning two overhead line projects to facilitate cross-border sharing of electricity, promote better competition, and to ensure a future secure supply of electricity throughout the North East.

The two projects are:

- 80km Kingscourt, Co. Cavan to Turleenan, Co. Tyrone 400kV Power Line; and
- 58km Woodland, Co. Meath to Kingscourt, Co Cavan 400kV Power Line.

A new 80km 400kV power line between Cavan and Tyrone will more than double the current power transfer capacity between the North and the South. Approximately 35km will be in Northern Ireland and the remaining portion will be in the Republic of Ireland, routed from a proposed new substation near Kingscourt in Co. Cavan through Co. Monaghan to a proposed new substation in Co. Tyrone. This project is being undertaken in co-operation with Northern Ireland Electricity (NIE).

The 58km Woodland, Co. Meath to Kingscourt, Co. Cavan 400kV Power Line is necessary to strengthen the existing power supply in the North East due to recent increased development in the region. This project will connect the existing sub-station in Woodland, Co. Meath to a proposed new sub-station near Kingscourt in Co. Cavan.

### 1.1.2 The EirGrid Project Team

The EirGrid Project Team consists of five key organisations, who are detailed below.

#### 1.1.2.1 EirGrid

Eirgrid plc, a state owned company, is the independent electricity Transmission System Operator in Ireland and the Market Operator in the wholesale electricity trading system. EirGrid's role is to deliver quality connection, transmission and market services to generators, suppliers and customers utilising the high voltage electricity system, and to put in place the grid infrastructure required to support the development of Ireland's economy. EirGrid develops, maintains and operates a safe, secure, reliable, economical and efficient transmission system. EirGrid has played a key role in establishment of the new All-Island Market for Electricity, as well as commencing development of the Meath-Cavan 400kV Power Line and the Cavan-Tyrone 400kV Power Line.

### **1.1.2.2 Soluziana/Tobin Consulting Engineers**

Soluziana/Tobin Consulting Engineers are involved in the project as consulting engineers for the Meath-Cavan power line. Soluziana/Tobin's key role in this project is to provide support to EirGrid in the following areas: technical and environmental assessments, identification of route corridor options, suggestion of the preferred route option, preparation of an environmental impact statement (EIS), and, ultimately, the submission of a planning application.

### **1.1.2.3 ESBI**

ESBI are involved in the project as consulting engineers for the Cavan-Tyrone power line. ESBI's key role in this project is to provide support to EirGrid in the following areas: technical and environmental assessments, identification of route corridor options, suggestion of the preferred route corridor option, preparation of an environmental impact statement (EIS), and, ultimately, the submission of a planning application.

### **1.1.2.4 Mary Murphy Associates**

Mary Murphy Associates (MMA) are involved in the project as communications consultants. For this project, MMA provide media management and overall strategic communications support and advice.

### **1.1.2.5 RPS**

The RPS Project Communications Team consists of a team of environmental scientists who are involved in the project as the stakeholder management consultants. The project role of RPS is to inform, consult, and involve stakeholders. RPS Project Communications provides project support through consultation management and stakeholder liaison.

### 1.1.3 Consultation Process

As part of Phase 1 of this project, (the 'Strategic Constraints Scoping' phase), EirGrid has been actively engaging in consultation, with members of the public, regarding the routing of the proposed power line projects, The purpose of consultation in Phase 1 Strategic Constraints Scoping has been to:

- Provide members of the public with accurate, up-to-date information on the project;
- Address directly, with appropriate experts, the issues, questions, and concerns that stakeholders have in relation to the project; and
- Provide stakeholders with the opportunity to input information which will be considered by EirGrid as part of the decision making process.

Engagement with the public is allowing the EirGrid Project Team to assess and address the key issues and primary concerns for members of the public with regard to these proposed power lines. Issues relating to health, and the possibility of placing these power lines underground, were raised. Additionally, many people are concerned about the impact of the power lines on the landscape, environment, property values, and cultural heritage of the area. Information received during the consultation process is allowing EirGrid to obtain local knowledge and specific information to augment the knowledge already established in the desktop studies and site investigations. These findings will be taken into consideration in the decision making process and will be further dealt with through the EIS.

### 1.1.4 Going Forward

EirGrid are currently entering Phase 2 of the Projects, namely the preparation of the "Constraints and Route Selection Report" and continue to engage proactively with the public, address concerns and queries, and bring issues forward that will feed into the decision making process.

As work on the projects progresses in the coming months, more updates will become available. These updates will be available to download on the EirGrid website, or can be posted, by request.

## **2 STAKEHOLDER CONSULTATION**

### **2.1 INTRODUCTION TO THE STAKEHOLDER CONSULTATION PROCESS**

The EirGrid Project Team has been actively engaging in a stakeholder consultation process as part of the Phase 1 Strategic Constraints Scoping.

The primary purpose of this phase of consultation has been to:

- Provide members of the public with accurate, up-to-date information on the project;
- Address directly, with appropriate experts, the issues, questions, and concerns that stakeholders have in relation to the project; and
- Provide stakeholders with the opportunity to input information which will be considered by EirGrid as part of the decision making process.

In total, EirGrid has been in contact with over 11,000 stakeholders since starting work on the project. This has been through phone calls, emails, letters, feedback forms, Open Days, and personal meetings.

### **2.2 STAKEHOLDER ENGAGEMENT**

Since the public consultation phase began, in October 2007, the EirGrid Project Team has engaged extensively with the interested public audience. The different stakeholders engaged with thus far include:

- General members of the public
- Elected members (MEPs, TDs, etc.)
- Local businesses
- Action groups
- Key strategic stakeholders

Prior to beginning the consultation process, draft procedures were put in place to ensure that all queries were dealt with appropriately and in a timely manner. The aim of these strict procedures is to ensure that all stakeholders have their queries answered or their concerns addressed and that all information available is provided to them.

## 2.2.1 Open Days

Part of the stakeholder engagement process involved two series of Open Days, which were hosted throughout the region affected by the proposed power lines. The main goal of these events was to:

- Provide the general public with information on the projects;
- Offer members of the public a place to ask questions;
- Clarify concerns of members of the public; and
- Allow stakeholders to provide feedback for consideration by the project team in the decision making process for the two proposed power line projects.

### Key Figures

First series: 11<sup>th</sup>, 16<sup>th</sup> & 17<sup>th</sup> October 2007 – Over 500 stakeholders in attendance.

Second series: 27<sup>th</sup> & 28<sup>th</sup> November 2007 – Over 300 stakeholders in attendance

Total number of people in attendance at both Open Days: Over 800

### 2.2.1.1 Open Days – Series One

The schedule for the first series was as follows:

- 11<sup>th</sup> October 2007, 3:00 p.m. to 8:00 p.m.: Castle Arch Hotel, Trim, Co. Meath
- 16<sup>th</sup> October 2007, 3:00 p.m. to 8:00 p.m.: Glencarn Hotel, Castleblayney, Co. Monaghan
- 17<sup>th</sup> October 2007, 3:00 p.m. to 8:00 p.m.: Cabra Castle Hotel, Kingscourt, Co. Cavan

These events catered for over 500 people and were a success. Members from the EirGrid Project Team spoke to people about the project and addressed people's questions or concerns raised. When follow up was required, the name, contact information, and query or issue of the relevant person was recorded and the Project Team processed this in the weeks after the Open Day.

A great deal of feedback on the project was conveyed to the Project Team and this information is being considered by EirGrid as part of the decision making process.

### 2.2.1.2 Open Days – Series Two

As a result of the positive reception to the Open Days and interest in more information on the project, a second round of events was planned. These took the same format as the first series of Open Days, with information materials available and the Project Team on hand to answer people's questions.

In addition to this service, small, 'Break Out' sessions on the two topics of "Health", and "Underground versus Overground power lines" were planned. These were aimed at people who had been in repeat contact with the EirGrid Project Team and had a number of specific questions in relation to these two issues that they needed to be addressed. The 'Break Out' sessions were advertised on EirGrid's website, ensuring that all interested members of the public could request a place in a session. These 'Break Out' sessions took the form of facilitated small discussion groups where attendees could have the chance to raise questions with experts on the issues of undergrounding and health. Those who had not signed up to these facilitated discussions could ask other Project Team members similar questions in the main Open Day room.

The planned schedule for these Open Days was as follows:

- 27<sup>th</sup> November 2007, 3:00 p.m. to 8:00 p.m.: Four Seasons Hotel, Monaghan Town, Co. Monaghan
- 28<sup>th</sup> November, 3:00 p.m. to 8:00 p.m.: Cabra Castle Hotel, Kingscourt, Co. Cavan
- 29<sup>th</sup> November 2007, 3:00 p.m. to 8:00 p.m.: Old Darnley Lodge, Athboy, Co. Meath

Unfortunately, Cabra Castle Hotel and the Old Darnley Lodge cancelled their events for health and safety issues and security concerns<sup>1</sup>. These cancellations occurred just 24 hours before both events and, therefore, rescheduling proved problematic. The 28<sup>th</sup> November 2007 event was relocated to the Four Seasons Hotel, Monaghan, but an alternative venue for the 29<sup>th</sup> November 2007 event could not be found at such short notice. To ensure that members of the public were informed of these changes, fliers were produced and staff were placed at both Cabra Castle Hotel and the Old Darnley Lodge to advise members of the public of the cancellations. Those people who had signed up for the Open Day 'Break-Out' sessions were informed via email or phone call. The cancellation was also publicised in various media, which is detailed in the Communications and Media section of this report.

Over 250 people attended the first Monaghan Open Day. Further numbers turned up to the Open Day, however for health and safety reasons, restrictions were placed on the number of people allowed to enter the room at any one time and thus not everyone gained access. The contact details of those people who were unable to enter the Open Day were noted so that the EirGrid Project Team could follow up on their queries and concerns. Approximately 70 people attended the relocated event in the Four Seasons Hotel, Co. Monaghan on 28<sup>th</sup> November 2007.

The Open Days resulted in a huge number of information requests from the public. The EirGrid Project Team recorded requests for information, such as maps and brochures on health and this information was sent to the stakeholders as soon as it was available. The EirGrid Project Team recorded information from nearly 300 individuals at the Series Two Open Days.

Once again, all of the information and feedback gathered from members of the public at the Open Days has been considered by EirGrid and will add to the body of studies that will feed into the decision making process for this project.

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<sup>1</sup> See Appendix A for copies of open day cancellation letters

## 2.2.2 Small Group Meetings

As a result of the cancellation of some of the Open Days and the subsequent disappointment of members of the public, EirGrid proposed to arrange small group meetings for the following people:

1. Those who had signed up for a Break-Out Discussion session at one of the Open Days, which did not take place due to last minute cancellation by the hotels.
2. Those who turned up at the Monaghan Open Day, but were unable to enter due to restrictions on entrance numbers by security for health and safety reasons.

The meetings took place between members of the public and EirGrid Project Team members. The small group meetings were a means of fulfilling EirGrid's promise to the above people to meet with the Project Team. Approximately 220 people were invited to various, small round-table meetings scheduled on the following dates and locations:

- Monday 14<sup>th</sup> January 2008, Navan, Co. Meath
- Tuesday 15<sup>th</sup> January 2008, Mullagh, Co. Cavan
- Wednesday 16<sup>th</sup> January 2008, Trim, Co. Meath
- Thursday 17<sup>th</sup> January 2008, Carrickmacross, Co. Monaghan
- Friday 18<sup>th</sup> January 2008, Castleblayney, Co. Monaghan

The Navan meetings on Monday (14<sup>th</sup> January 2008) went well, as a large number of invitees were in attendance and had lengthy discussions with EirGrid. Unfortunately, however, at the Tuesday (15<sup>th</sup> January 2008) night meeting in Mullagh, after an evening of successful meetings, a group of protestors forcibly entered the meeting room and harassed, physically intimidated, verbally threatened, and prevented members of the EirGrid Project Team from leaving the hotel. A report was made to the local Garda Station where statements were given. Due to safety concerns for staff and members of public it was felt that it would not be appropriate to continue with the rest of the week's meetings for fear of a similar incident occurring.



### 2.2.3 Strategic Stakeholders

EirGrid have been contacting key strategic stakeholders in the region to brief them about the project, issue project information, and offer an invitation to a briefing session with EirGrid. These strategic stakeholders include business groups, farming organisations, and many other groups in the area that may have an interest in the project. Information on the project has been sent to the following stakeholders and the majority have also been briefed over the phone.

- Kells Chamber of Commerce
- Navan Chamber of Commerce
- Coothill Chamber of Commerce
- Monaghan Chamber of Commerce
- Enterprise Ireland
- Foras Áiseanna Saothair (FÁS)
- Macra na Feirme Cavan
- Macra na Feirme Meath
- Macra na Feirme Monaghan
- Midlands-East Regional Tourism Authority
- North-West Regional Tourism Authority
- Small Firms Association
- Teagasc (Monaghan – Cavan)
- Teagasc (Meath)
- Industrial Development Agency
- Forfás
- Sustainable Energy Ireland (SEI)

The EirGrid Project Team have had meetings with the following strategic stakeholders:

- Chambers Ireland
- Department of Enterprise, Trade, and Employment (DETE)
- Economic and Social Research Institute (ESRI)
- Enterprise Ireland
- Forfás
- Gaelic Athletic Association (GAA)
- Irish Business and Employers Confederation (IBEC)
- Industrial Development Agency (IDA)
- Sustainable Energy Ireland (SEI)

As the project progresses, the strategic stakeholders will have further opportunities to engage with the EirGrid Project Team, as EirGrid will continue to maintain contact with these groups.

Feedback received, to date, from the strategic stakeholders is being reviewed by EirGrid and will be considered as part of the decision making process.

## 2.2.4 Lo-Call Phone Line

### Key Figures

Over 1,200 calls have been received to date.

The Lo-Call Phone Line was set up as an information line for the public to get direct access to project information and has been available since the consultation process was launched. The phone line is manned during regular working hours with a voicemail system set up to take messages outside of this time. Thus far, over 1,200 calls have been received on the phone line.

The Lo-Call phone line (1890.25.26.90) is monitored between 9:00 a.m. and 5:00 p.m. but silenced during the lunch hour. A voicemail system is set up in order to allow stakeholders to leave a message after office hours.

A 48 hour turnaround time was implemented for all calls, but typically all calls are responded to within one hour, or less. If a call is missed, the voicemail is checked and the call is returned. The EirGrid Project Team always leave a message for people, advising them that their call has been returned and that they would be happy to assist if they call back. EirGrid have been involved in speaking with stakeholders on the phone (both in English and Irish), in order to ensure the stakeholder received a complete and robust response.

The EirGrid reception and customer relations teams have also dealt with a significant number of queries on their phone lines. Whenever a call is received on one of these phone lines, the information and feedback is given to the Project Team, in order to ensure that all comments and concerns are taken into consideration on the project.

Through the phone line and the EirGrid reception and customer relations lines, EirGrid has engaged with a wide public audience and the feedback received on the phone lines will feed into the decision-making process on the project.

## 2.2.5 Feedback Forms

### Key Figures

To date, 4,410 feedback forms received and responded to.

Blank feedback forms were provided on the back of all the information brochures, which were given out at the Open Days or posted out upon request<sup>2</sup>. The feedback forms are also available to download from the EirGrid website. These feedback forms are self addressed and provide a space for members of the public to document their queries and concerns in writing as well as ask questions. To date, a total of 4,410 feedback forms have been received and responded to in writing.

From early on in the project a “template” with pre-printed issues for the feedback forms was created by members of the public and disseminated throughout the potentially affected communities. Large numbers of these standard feedback forms were signed and returned.

Feedback forms were received in both English and Irish. When a feedback form was received in Irish, one of the Project Team Irish speakers drafted a response, in order to correspond in the preferred language of the stakeholder. All feedback forms receive a response that addresses the queries or concerns raised.

Information received from the feedback forms will be considered by EirGrid as part of the decision making process.

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<sup>2</sup> See Appendix B for the ‘Meath-Cavan 400kV Power Line’ and the ‘Cavan Tyrone 400kV Power Line’ brochures - attached to the final page of both these brochures is the feedback form.

## 2.2.6 Emails

### Key Figures

To date, 939 emails have been received and responded to.

Two email addresses were set up at the onset of the project to handle incoming queries and concerns from the public. The addresses ([meathcavanpower@eirgrid.com](mailto:meathcavanpower@eirgrid.com) and [cavantyroneinterconnector@eirgrid.com](mailto:cavantyroneinterconnector@eirgrid.com)) were publicised in all information materials and press releases in order to increase the opportunities for the public to engage on these projects.

The email addresses proved to be a very popular method of communication, as clear, concise answers are provided rapidly. Often a stakeholder uses the email addresses to create a “conversation” with the EirGrid Project Team and a series of emails would go back and forth. As of Friday 7<sup>th</sup> March 2008, a total of 939 emails have been received and responded to.

Once again, the team implemented a 48 hour maximum turnaround time for queries. Most queries are responded to instantly, but as the consultation process has progressed, a number of in-depth, intricate queries requiring detailed and studied responses have been required. These often take longer to process and therefore the 48 hour turnaround time does not often apply to larger, more complex, submissions.

All email feedback received to date has been considered as part of the decision-making process and will continue to do so as the project progresses.

## 2.2.7 Letters

### Key Figures

To date, 1,009 letters received and responded to.

Many members of the public sent in letters that raised concerns or questions regarding the project. All letters have been responded to with an answer that addresses all queries and concerns brought up. Relevant information materials including the 'FAQ' and 'EirGrid Update' brochures, the 'Information on EMF' booklet, and general project information leaflets are included in letter responses, where necessary<sup>3</sup>. All letter responses are kept to a 48 hour response timeframe, as with all other correspondence.

Letters were received in both English and Irish. When a letter was received in Irish, one of the Project Team Irish speakers drafted a response, in order to correspond in the preferred language of the stakeholder.

All general feedback received in letters has been noted and information obtained will be considered by EirGrid as part of the decision making process for the projects.

## 2.2.8 Action Group Submissions

As the consultation process has progressed, many public action groups have formed in order to consolidate their opposition to the proposed power lines. Some of these action groups have made submissions to the Project Team, either in person (a representative of the organisation would meet with EirGrid) or via the post or email. The submissions that have been made to date, have often been large and detailed, with very high quality and content. Submissions have frequently contained maps, reports, costings of alternative options, presentations, petitions, and details of possible constraints. These submissions have frequently required technical detail and study on behalf of the Project Team and appropriate responses have been sent. EirGrid ensures that all issues raised by action groups in their submissions are addressed in the response in order to ensure that any information gaps are filled and misinformation amongst the public is reduced. Much of the information that has informed the EirGrid Project Team has been received through these action group submissions.

Furthermore, petitions have also been submitted on behalf of action groups as part of their submissions. A total of 2,596 individual petition signatories have been recorded from the various petitions received to date.

All feedback received from submissions will be considered by EirGrid as part of the decision making process.

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<sup>3</sup> See Appendix B for archives of all project information materials

### 3 INTRODUCTION TO THE COMMUNICATIONS AND MEDIA PROCESS

EirGrid have been actively engaging with the media, in order to support the public consultation process.

The primary purpose of this phase of consultation has been to:

- Provide members of the public with accurate, up-to-date information on the project via media outlets; and
- Address directly, with appropriate experts, the issues, questions, and concerns that stakeholders have in relation to the project and express those views through the media.

#### 3.1 PUBLIC AFFAIRS

The EirGrid Project Team introduced the project to politicians, engaging their interest at all levels and maintaining regular communications with local TDs, Senators, MEPs, and Councillors.

##### 3.1.1 National Politicians – TDs, Senators, and MEPs

The EirGrid Project Team invited all politicians in Meath, Monaghan, and Cavan to the October Open Days. Individual, personalised letters were written to all TDs, Senators, and MEPs in Ireland on 6<sup>th</sup> November 2007, introducing them to the project and inviting them to a one-to-one briefing with EirGrid.<sup>4</sup>

All MEPs, Senators, and TDs in Meath, Cavan, and Monaghan were telephoned to invite them to a meeting, either on 13<sup>th</sup> November 2007 in Buswell's Hotel, Kildare Street, Dublin 2 or on an alternative date in a venue of their choice.

Following the letters that were sent to all national, elected politicians, phone calls were received from elected members from outside of the catchment area asking for briefings and from a similar number saying they were not interested in receiving information about these projects.

Meeting rooms in Buswell's Hotel were organised for 13<sup>th</sup> November 2007 and on that day (and on subsequent days) meetings were co-ordinated between EirGrid and the TDs, Senators, and MEPs from all political party backgrounds.

The offices of all of the TDs, Senators, and MEPs in the affected three counties were contacted by telephone on Tuesday, 27<sup>th</sup> November 2007 to notify them that the venue for the Cavan Open Day to be held on 28<sup>th</sup> November 2007 had been changed (at the request of the hotel).

The offices of all of the TDs, Senators, and MEPs in the three counties on Wednesday 28<sup>th</sup> November 2007 were again contacted by telephone to notify them that the Meath Open Day, due to be held on 29<sup>th</sup> November 2007, had been cancelled at the request of the hotel.

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<sup>4</sup> See Appendix E for copy of this councillor letter

On 29<sup>th</sup> November 2007, the offices all of the TDs, Senators and MEPs in the three counties were emailed in order to ask them if they would like to be included on a media mailing list to receive all press releases and media briefings issued and a number of TDs, MEPs, and Senators advised they would like to be included

Another information pack was sent by post to all TDs, Senators, and MEPs in the three counties on 6<sup>th</sup> December 2007 containing the 'Dear Householder' leaflet and an 'FAQ' brochure<sup>5</sup>.

### **3.1.2 Councillors in Meath, Cavan, and Monaghan**

EirGrid made presentations to Meath County Council, Cavan County Council, and Monaghan County Council between 1<sup>st</sup> and 8<sup>th</sup> October 2007, introducing them to the project and outlining the public consultation process. The EirGrid Project Team circulated the project brochures to all Councillors present.

The EirGrid Project Team wrote an individually personalised letter to all County Councillors and Town Councillors in Counties Meath, Cavan, and Monaghan on 7<sup>th</sup> November 2007 following up on the presentations to the Council meetings, providing them with an update on the public information days held in mid-October, and inviting them to meet EirGrid one-to-one at their convenience.

The EirGrid Project Team then set up meetings for representatives with those Councillors who responded to the invitations and spoke to them by phone, asking those who had not made it to Buswell's to come to the Open Days.

All Councillors were notified of the additional Open Days in early November 2007. On Tuesday 27<sup>th</sup> of November 2007, all of the Councillors in the three counties were telephoned to notify them that the venue for the Cavan Open Day to be held on 28<sup>th</sup> November 2007 had been changed (at the request of the hotel). The EirGrid Project Team telephoned all of the Councillors in the three counties on Wednesday 28<sup>th</sup> November to notify them that the Meath Open Day due to be held on 29<sup>th</sup> November had been cancelled at the request of the hotel.

On 29<sup>th</sup> November 2007 all councillors in the three counties were emailed, asking them if they would like to be included in a media mailing list to receive all press releases and media briefings issued; many councillors agreed to join the mailing list.

The EirGrid Project Team posted another information pack to all Councillors in the three Counties on 4<sup>th</sup> December 2007 containing the 'Dear Householder' leaflet and the 'FAQ' brochure, which were both created in order to answer queries that arose during the Open Days<sup>6</sup>. Copies of the FAQ brochure were also sent to the County Librarians in Meath, Monaghan, and Cavan for onward distribution to the respective branch libraries.

Monaghan and Cavan County Councils have subcommittees of councillors set up to review the project, as it affects their particular areas. The EirGrid Project Team organised one briefing for the Monaghan subcommittee of 10 councillors and two planning officials for Thursday 22<sup>nd</sup> December 2007. Another meeting took place with the Cavan subcommittee of 10 members in early January 2008. Over the period of November 2006 – January 2007 the EirGrid Project Team met separately with the all Electoral Area Councils in Meath, namely Ashbourne, Dunshaughlin, Kells, Slane, and Trim.

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<sup>5</sup> See Appendix B for a copy of the 'Dear Householder' leaflet & the 'FAQ' brochure

<sup>6</sup> See Appendix B for a copy of the 'Dear Householder' leaflet & the 'FAQ' brochure

## 3.2 MEDIA

### 3.2.1 Press and Media Relations

In September 2007, a list of all local media was compiled and a press release drafted. The EirGrid Project Team issued the release and press pack to media by email, fax, post, and at Council meetings on 1<sup>st</sup> October 2007<sup>7</sup> (the day that EirGrid went to County Council meetings to brief Elected Members in the catchment area). A follow up call with each local media outlet also took place.

A press release announced the project and encouraged attendance at the October Open days. This was issued to the local media on 1<sup>st</sup> and 8<sup>th</sup> October 2007. The press pack contained maps of both projects' proposed route corridors and the brochures for each project. Media were encouraged to attend the Open Days in order to have their questions and concerns clarified by the Project Team.

The EirGrid Project Team drafted and issued press releases to local media on 11<sup>th</sup> November 2007, announcing the repeat Open Days<sup>8</sup>. Interviews were lined up on the local radio stations in order to inform the public about the facts of the power lines and the health effects. These interviews had national and international health experts on air to give information to the public. The details of the interviews are as follows:

#### 27<sup>th</sup> November 2007:

- Monaghan Echo - Interview with Donal McMahon
- Monaghan Post - Interview with Clíodhna Connolly
- Anglo Celt - Interview with Sean McMahon

#### 28<sup>th</sup> November 2007:

- Cavan Post - Interview with Caroline McGarrell

On Tuesday 27<sup>th</sup> November 2007, The EirGrid Project Team telephoned and emailed editors and reporters in all the local newspapers and the two local radio stations to notify them that the venue for the Cavan Open Day to be held on 28<sup>th</sup> November 2007 had been changed at the last minute request of the hotel. Interviews were lined up, as a result of this cancellation. They took place as follows:

#### 26<sup>th</sup> November 2007:

- Northern Sound Radio 2:00 P.M.

#### 27<sup>th</sup> November 2007:

- LMFm Radio 10:30 A.M. Interview on Loose Talk

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<sup>7</sup> See Appendix D for October 1<sup>st</sup> Press Release

<sup>8</sup> See Appendix D for November 11<sup>th</sup> Press Release



The EirGrid Project Team also ensured that the change of venue was announced on all news bulletins that day on the two local radio stations.

On Wednesday 28<sup>th</sup> November 2007, The EirGrid Project Team again telephoned and emailed all of the local press and LMFM to notify them that the Meath Open Day due to be held on 29<sup>th</sup> November 2007 had been cancelled at the request of the hotel. It was again ensured that the announcements were carried on all news bulletins on LMFM that day and on the 29<sup>th</sup> November 2007.

#### Television programmes

- Ear to the Ground – Thursday 3<sup>rd</sup> January 2008

Ear to the Ground reporters attended the Open Day in Monaghan on 28<sup>th</sup> November 2007. They interviewed members of the project team, external experts and members of public. This coverage was featured on Ear to the Ground on the 3<sup>rd</sup> January 2008.

- Prime Time – Thursday 31<sup>st</sup> January 2008

Prime Time featured the proposed power lines in a programme broadcast on Thursday 31<sup>st</sup> January 2008. It included positive footage of the Open Day in Monaghan and an interview with the Project Manager as well as interviews with opponents of the proposed projects.

### 3.2.2 Press Releases<sup>9</sup>

The EirGrid Project Team have drafted and issued numerous press releases as part of the ongoing campaign to keep the local journalists aware of all aspects of the project. The details of these press releases are:

- 1<sup>st</sup> October 2007: New Electricity Lines for North East will Increase Capacity and Enable More Development and Commerce
- 17<sup>th</sup> October 2007: Cavan – Tyrone and Meath – Cavan Power Line Route Corridor Options Maps
- 11<sup>th</sup> November 2007: North East to Benefit from Major Electricity Investment Plans
- 23<sup>rd</sup> November 2007: EirGrid Announces Extension of Public information and Consultation Process
- 26<sup>th</sup> November 2007: EirGrid Announces Extension of Public Information and Consultation Process
- 28<sup>th</sup> November 2007: Eirgrid Open Day in Athboy Planned for Tomorrow Thursday Cancelled by Hotel
- 30<sup>th</sup> November 2007: Eirgrid Thanks Those who Attended
- 4<sup>th</sup> December 2007: Irish Times Letter
- 12<sup>th</sup> December 2007: The Great Pylon Debate in Meath Chronicle
- December 2007: Update for Local Media and Health and EMF Release
- December 2007: 'Dear Householder' Leaflet
- 14<sup>th</sup> January 2008 : EirGrid says Health Fears are Unfounded
- 16<sup>th</sup> January 2008: EirGrid Expresses Concern at Incidents Involving Staff at Co. Cavan Meeting
- 20<sup>th</sup> January 2008: EirGrid Welcomes Statement from Minister
- 21<sup>st</sup> January 2008: EirGrid Still Looking for Submissions
- 1<sup>st</sup> February 2008: EirGrid Statement on Fluorescent Tube / Power Line Photographs
- 25<sup>th</sup> February 2008: EirGrid Reaffirms Need for Power Lines in North East Region at Meetings with Meath County Council

By way of further informing the public, an article on the project was also published in the Meath Chronicle on 15<sup>th</sup> December 2007<sup>10</sup>. The EirGrid Project Team drafted text for the article and wrote a reply letter to the editor of the Irish Times in response to two letters (dealing particularly with one which appeared on 3<sup>rd</sup> December 2007)<sup>11</sup>.

In addition, calls from local and national journalists are answered on a daily basis and it is always ensured that journalists are responded to well within his or her deadline.

In addition to taking calls from media, the EirGrid Project Team maintain regular pro-active contact with all the local media regarding the EirGrid projects and speak to the editors and reporters from each local newspaper and to the local radio stations at least once a week.

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<sup>9</sup> See Appendix D for copies of all press releases

<sup>10</sup> See Appendix D for copy of this Meath Chronicle article

<sup>11</sup> See Appendix D for copy of this EirGrid letter

### 3.2.3 Advertising<sup>12</sup>

In September and October 2007, the EirGrid Project Team drafted text and placed advertisements promoting the October Open Days for two weeks from 2<sup>nd</sup> until 17<sup>th</sup> October 2007 in the following local newspapers:

- Meath Chronicle                    3<sup>rd</sup> - 10<sup>th</sup> October 2007
- Meath Weekender                2<sup>nd</sup> October 2007 (this is a fortnightly publication)
- Meath Echo                        8<sup>th</sup> - 15<sup>th</sup> October 2007
- Northern Standard            11<sup>th</sup> - 18<sup>th</sup> October 2007
- Anglo Celt                         10<sup>th</sup> - 17<sup>th</sup> October 2007

Ads for radio were aired on the following dates (inclusive):

- LFM – 14 x 30 second spots (2 spots per day) were run from 7:00 A.M. until 9:00 A.M. from 4<sup>th</sup> to 11<sup>th</sup> October 2007.
- Northern Sound – 14 x 40 second spots were run from 11<sup>th</sup> to 16<sup>th</sup> October 2007 (there are only 2 spots per day –they ran in morning drive time only on weekdays).

During October and November 2007, The EirGrid Project Team drafted, edited and placed three separate press ads in local newspapers and one local radio ad, as follows:

- 16<sup>th</sup> to 23<sup>rd</sup> November 2007: ½ page ad promoting the November Open Days for one week in the following newspapers:

- Anglo Celt
- Meath Chronicle
- Northern Standard
- Westmeath Examiner
- Cavan Echo
- Cavan Voice
- Monaghan Weekender
- Meath Weekender
- Cavan Post
- Meath Post
- Monaghan Post

- 23<sup>rd</sup> November 2007: Full page advertisement appeared, '*Public Information Notice: Upgrade of Vital Electricity Infrastructure in the North East*'. This ad was placed by The EirGrid Project Team.

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<sup>12</sup> See Appendix C for copies of advertisements

- 29<sup>th</sup> November 2007: Full page advertisement, *Information in Relation to Two Overhead Proposed Lines*. This ran in the following publications:

- Anglo Celt
- Meath Chronicle
- Northern Standard
- Westmeath Examiner
- Cavan Echo
- Cavan Voice
- Monaghan Echo
- Meath Weekender
- Cavan Post
- Meath Post
- Monaghan Post

- 14<sup>th</sup> December 2007: Full Page advertisement '*EirGrid Information on Health and Proposed Power Lines in North East.*' This ad ran in the following media:

- Anglo Celt
- Meath Chronicle
- Northern Standard
- Westmeath Examiner
- Cavan Echo
- Cavan Voice
- Monaghan Echo
- Meath Weekender

Ads for radio were aired on 26<sup>th</sup> and 27<sup>th</sup> November 2007 on the local stations, LMFM and Northern Sound. The ad details are:

- 10 x 15 seconds ads publicised the Open Days over two days on LMFM and Northern Sound
- To announce the change of venue of the last Open Day, the ads were updated on 27<sup>th</sup> November 2007.

- 24<sup>th</sup> January 2008: EirGrid Update advertisements placed in all local papers.

### 3.2.4 Print and Web Tools

The EirGrid Project Team drafted text for the website, which was uploaded in early October 2007. EirGrid's website ([www.eirgrid.com](http://www.eirgrid.com)) has been continuously updated with project information and has proven to a very popular and accessible source of information on the project for members of the public.

Further, the EirGrid Project Team drafted and printed a 12-panel display for the Open Days, which provided maps and information on the projects.

During November 2007, the printing of the 'FAQ' booklet and the 'Dear Householder' leaflet was organised, in order to answer directly the issues, questions, and concerns of the public<sup>13</sup>. The leaflets were distributed as follows:

- Both leaflets in a press pack to all local and freelance media in the three counties
- Both leaflets to all TDs, Senators, MEPs, and Councillors in the three counties

In order to ensure the maximum distribution of the 'Dear Householder leaflet,' it was provided to the public in door-to-door drops and via a leaflet insert in all local newspapers that had availability or facility to take an insert between 26<sup>th</sup> November 2007 and 10<sup>th</sup> December 2007, namely:

- Anglo Celt – 6<sup>th</sup> December 2007
- Cavan Echo – 11<sup>th</sup> December 2007
- Meath Weekender – 8<sup>th</sup> December 2007
- Cavan Post – 11<sup>th</sup> December 2007
- Meath Post - 11<sup>th</sup> December 2007
- Monaghan Post – 13<sup>th</sup> December 2007

Furthermore, all printed material was also available to download on the EirGrid website. This ensured a maximum distribution of information to all members of the public.

### 3.3 COMMUNICATIONS AND MEDIA – SUMMARY OF PROGRESS TO DATE

- Coverage generated in local and national media;
- National and local politicians engaged and regularly communicated with;
- Ongoing contact with local media established;
- Series of advertisements drafted and placed in local papers<sup>14</sup>
- Strong public awareness of the project;
- Debate has begun and main issues are defined. These are overhead versus underground lines, and health effects of EMF, and property devaluation;
- Variety of information leaflets printed and distributed to media, politicians, and interested stakeholders<sup>15</sup>
- Radio interviews with independent experts for Irish media;
- Issue of regular press releases<sup>16</sup>
- Regular liaison with local and national politicians and other stakeholders.
- Presentations made by the EirGrid Project Team to Elected Members

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<sup>13</sup> See Appendix B for copy of the 'Dear Householder' leaflet and the 'FAQ' brochure

<sup>14</sup> See Appendix C for copies of advertisements

<sup>15</sup> See Appendix B for archive of all information materials produced to date

<sup>16</sup> See Appendix D for copies of press releases

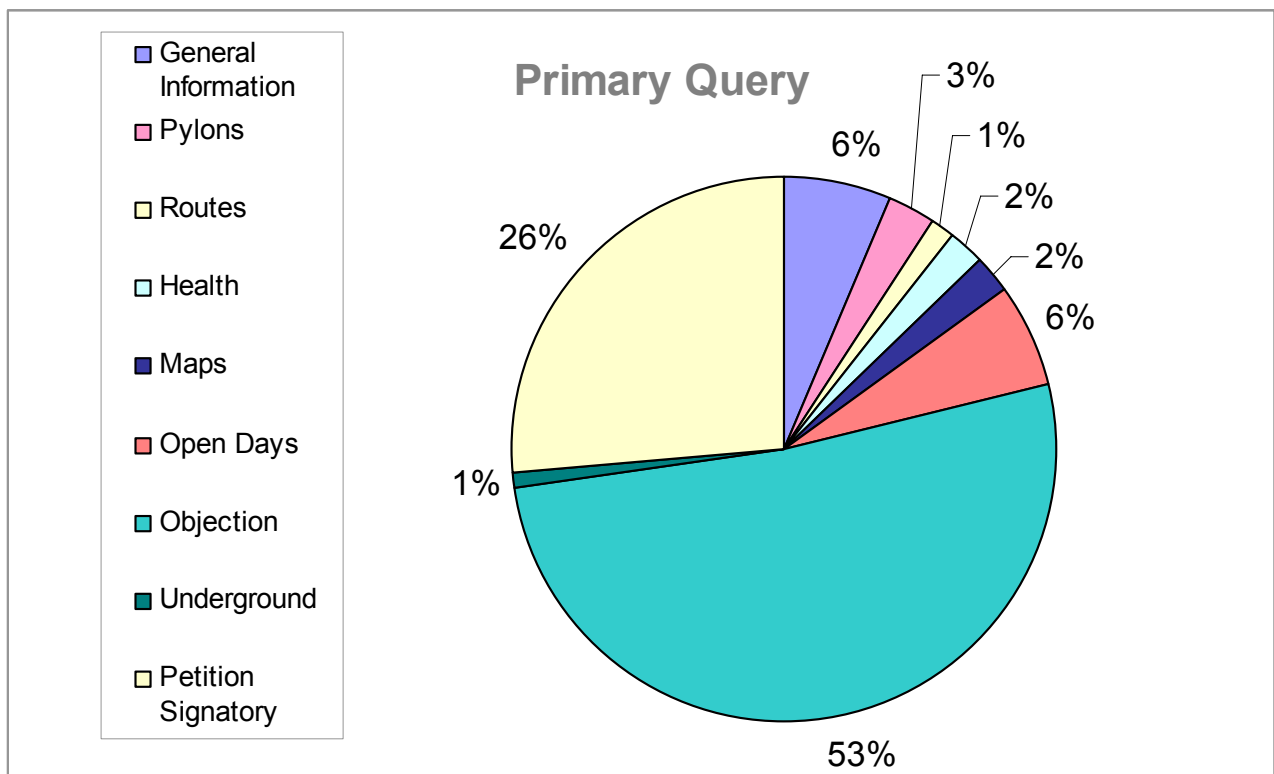
## 4 ISSUES RAISED

From continuous engagement with the public through the phone line, letters, feedback forms, emails, Open Days, and meetings, The EirGrid Project Team has been able to build up a picture of the recurrent issues for stakeholders regarding this project. Figures 4.1 and 4.2 illustrate further the key issues that emerged as a result of consultation.

### 4.1 PRIMARY QUERY

Figure 4.1 details the “primary query” raised by a member of the public when contacting The EirGrid Project Team. For example, if a stakeholder called and stated, “I would like to register my objection to the projects,” one box, for objection was ticked. In the Primary Query section, only one issue could be selected.

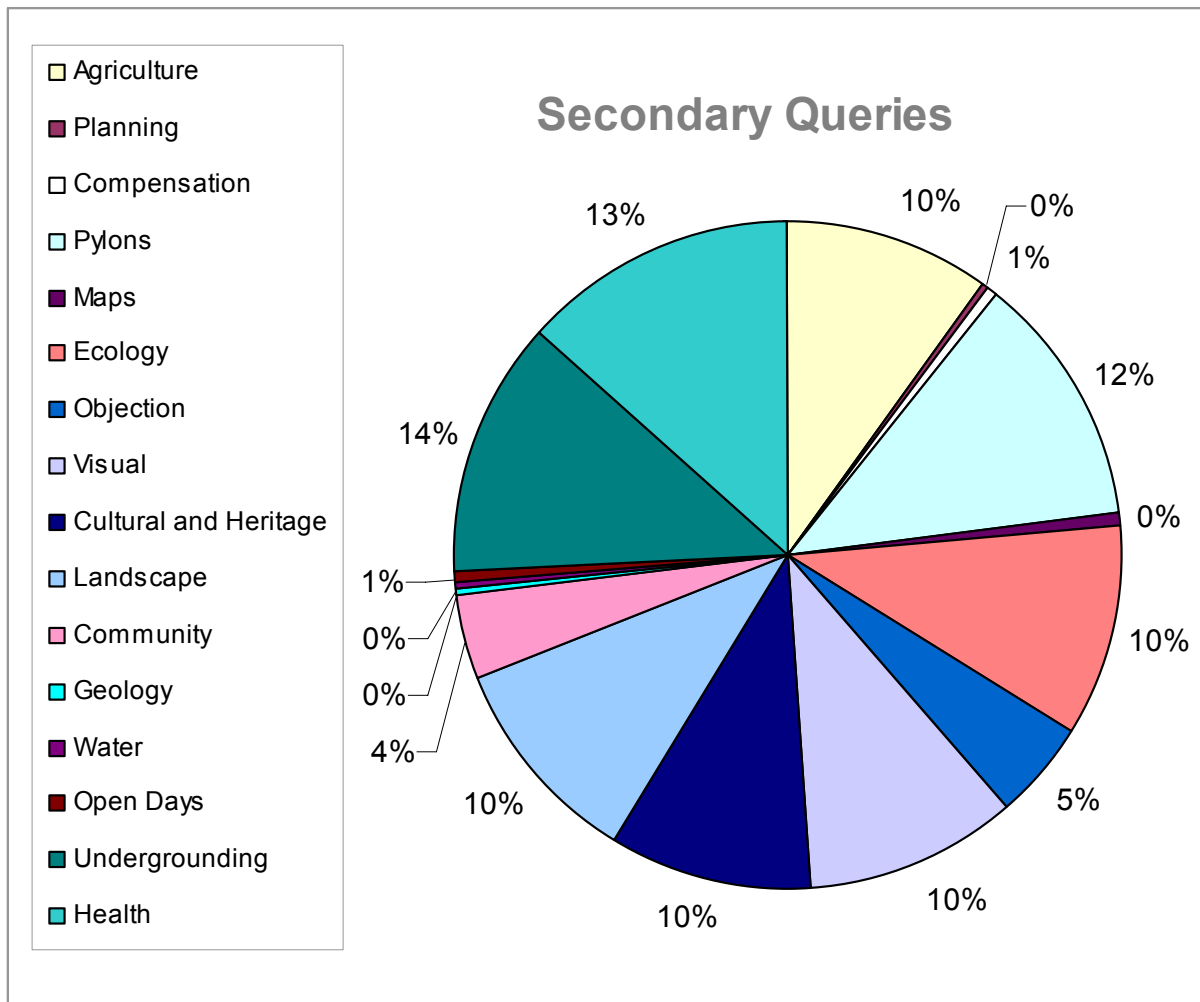
**Figure 4.1: Primary Query**



## 4.2 SECONDARY QUERIES

Figure 4.2 details the “secondary queries” raised by a member of the public when contacting The EirGrid Project Team. For example, after a stakeholder stated their primary query they often provided the rationale for their first issue. This often took the form of, “I object to the projects (Primary Query) for the reasons of health concerns, visual impact, and property devaluation.” These reasons would be the Secondary Queries. In the Secondary Query section, there was no limit to the number of boxes that could be ticked.

**Figure 4.2: Secondary Queries**



### 4.3 INTERPRETATION AND EXPLANATION

Figure 4.1 illustrates the main primary queries for members of the public and shows that the majority of stakeholders contacted for the purpose of lodging their objection. Others got in touch to request project information materials or to ask questions relating to either the proposed route corridors, Open Days, health impacts, or undergrounding.

From looking at the second pie chart (Figure 4.2) in conjunction with the first graph, one can get a clear picture of the broader issues that are being raised and which are causing people most concern. Many of the stakeholders who contacted The EirGrid Project Team to make an objection also raised concerns and asked questions on a number of issues. Looking at Figure 4.2 as an indicator of these issues, it can be seen that issues regarding agriculture, pylons, landscape, and ecology are of key concern.

However, underlying all of these key points are issues relating to undergrounding, property devaluation, and health. When speaking with members of the public, it was often EirGrid's experience that no matter what the objections to the project were founded upon (i.e. negative cultural impact, etc.) the majority of the stakeholders all felt as though health, undergrounding, and property devaluation concerns impacted their objection as well.

Many members of public have been keen to discuss the possibility of placing the power lines underground. The request by stakeholders for undergrounding the line has been seen as a solution to prevent the problems that may be caused by overgrounding the lines. It is generally felt by many members of the public that if the lines were placed underground, the problems with health, visual impact, land devaluation, and many of the other constraints would not be an issue. EirGrid is taking this concern into consideration. These concerns will feed into the decision making process.

Concern for property devaluation is being expressed by members of the public. Many people fear that if the power lines are built on or near their land, it will be devalued significantly and will reduce their ability to sell the property in the future. Many members of the public have expressed this concern and are also worried that the compensation may not be adequate to address the loss of value to their land.

The issue of health and electric and magnetic fields (EMF) is of primary importance for many of those in contact with EirGrid. Many people have expressed that although they are concerned about the impact the power lines would have on their community or the landscape in their area, their overriding concern is for their health. The EirGrid Project Team has engaged numerous health experts to speak with the public on this issue, in order to allay any fears that may be held and to provide scientific evidence to counter the wide array of misinformation that has been put into the public domain. In addition, The EirGrid Project Team produced a booklet on Health and EMF to help provide a greater understanding of the subject for all members of the public. The EirGrid Project Team recognise, also, that the issue of health permeates any of the other concerns. Again, these concerns will be fed into the decision making process.

Despite these negative objections, many members of the public expressed that they understood the need for the project. It was generally recognised that the projects are strategically important to Ireland. The concerns raised, therefore, were not necessarily rejecting the need for the project, but rather the methodology in which they are being implemented.

Discovering these key issues has enabled The EirGrid Project Team to produce appropriate public information leaflets to deal with these key themes.<sup>17</sup> EirGrid are aware of these key issues and they will feed into the decision making process for the projects.

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<sup>17</sup> See Appendix B for copies of all information materials produced to date.



## **4.4 KEY OBSERVATIONS AND EMERGING ISSUES**

Continuous engagement with members of the public is allowing EirGrid to examine, in partnership with the stakeholders, various constraints issues within the project area. This section provides an overview of key locations and areas of interest and segregates these into the following categories: Schools and Crèches, Ecology and Nature, Heritage and Listed Buildings, Cultural and Sport, Tourism and Development, Livestock and Racehorses, and Mining and Airfields.

### **4.4.1 Schools and Crèches**

Students, parents, and staff alike raised concerns for the proximity of the proposed lines to their schools and/or crèches. Highlighting the issues of health and children, large submissions from schools, especially those with Green Flags, were received, protesting against the power lines proposed for their area. Childcare facilities also sent in their opposition, noting the same reasons for objection.

### **4.4.2 Ecology and Nature**

Another area highlighted by some members of the public was concern for the wildlife and areas of natural beauty within the route corridors. Recognised areas of protection were identified, as were wildlife sanctuaries. Although many animals and insects were identified as species of concern with regards to this project, the two most popular were bats and Whooper Swans. Flocks of Whooper Swans of up to 200 birds inhabit the project area and there is a strong contingent of people concerned for their well-being. Specific lakes utilised by these birds were also identified as places that could be impacted by the proposed power lines.

Broader areas of concern raised by stakeholders related to woodlands. People noted that these were popular walking destinations for locals and tourists alike, and voiced concern on the potential impact of the power lines on the visual amenity of the area. Members of the public also paid particular attention to the drumlin landscape and bog lands were also highlighted as areas to avoid. Additionally, rivers were brought up as an amenity to be protected, as stressed by members from local angling clubs.

### **4.4.3 Heritage and Listed Buildings**

Many people were very concerned about the proximity of the proposed power lines to heritage houses, of which many are listed structures. A number of different heritage or listed homes in the project area were also raised as potential areas of concern. Many of the homeowners also submitted information on listed outbuildings, bogs, and endangered wildlife on their property.

Concerns were also raised about other heritage areas within and near the route corridors. These concerns included parochial houses, castles, abbeys, graveyards, and historic hills. Further concern was raised for thatched cottages.

General concerns were raised from stakeholders in the project area about the historic sites, such as ring forts and heritage woodlands, as these can be special sites of archaeological interest.

#### 4.4.4 Cultural and Sport

Key issues were raised throughout the consultation process by a number of sports organisations. In particular, GAA clubs and golf clubs noted their concerns for the proposed power lines impact on their recreational areas. Cultural organisations, including Gaeltacht groups and healing centres, were also notable contacts in this category. Most of these groups had similar concerns and were particularly worried about the possibility of the power lines preventing their organisations from continuing their current activities or from carrying out proposed expansion plans.

Notable complaints from golf clubs raised concern that power lines in the golf course could be a hindrance to play and some were concerned that erection of power lines could lead to a decrease in membership. GAA clubs raised concerns about the possible negative visual and health impacts of the power lines on their clubs. Additionally, members of Gaeltacht community groups also actively opposed the power lines on the grounds of disruption to natural and cultural heritage in the area.

A very significant number of contacts were received from people voicing their concern over the possibility of power lines being built near healing centres in the area. There is concern that power lines could ruin unspoilt landscape and cultural richness. Members of the public also drew attention to cultural activities and attributes of their localities. Harvest festivals and street fairs were both mentioned. Some communities were distressed and felt that the building of power lines in their locality would destroy the possibility of winning a 'Pride of Place Award,' which is an all-island competition that recognises positive and lasting community initiatives.

#### 4.4.5 Tourism and Development

Property developers highlighted their concerns about the possible detrimental effects the proposed power lines would have on them. They raised concerns about the impact the proposed power lines may have on their current and future developments, as they felt there would be negative visual impact to the land.

Tourist locations also sent in their objections, as it was felt that the negative visual impact of the power lines could possibly result in the reduction of the number of tourists to the area in the future.

#### 4.4.6 Livestock and Racehorses

In addition to concerns over wildlife, impacts on domestic animals were raised as another area of concern. Issues raised relating to impacts on racehorses and cattle were common, the welfare of poultry and other animals, such as greyhounds, were also mentioned.

Some parts of the proposed route corridors are located close to popular areas for the breeding of racehorses. Breeders were very concerned about the health of their animals, citing potential miscarriages as a huge loss of income. Stakeholders also raised the issue that their staff would not be willing to work near the lines, thereby resulting in a two-fold loss to the business. Fears were expressed that rumours would surround the stables based in the area and other breeders would not buy horses raised on these farms.

Cattle and dairy farmers also voiced their opinions with regard to the health of their herds if the proposed power lines are built in their area. Some pedigree herds are located near the proposed route corridors and beef cattle farms were also noted as areas to be considered as part of the decision making process. Health considerations for livestock were widespread. Research centres also contacted The EirGrid Project Team with regard to concerns over beef research. Concerns were raised regarding potential threats to the health of the study herd and how this may affect research results.

#### **4.4.7 Mining and Airfields**

A small number of stakeholders contacted The EirGrid Project Team to draw attention to mining operations in the project area, as it is felt the blasting could affect the power lines.

Airfields and flying clubs were identified by members of the public as being potentially affected, with the main issue for these stakeholders relating to potential flight path interruption by erection of power lines.

## 5 GOING FORWARD

Consultation activities, to date, have highlighted and helped quantify the issues and concerns that stakeholders have in relation to the proposed projects. These activities have helped inform the Project Team in relation to how the projects should move forward.

Ongoing public and stakeholder consultation will assist in establishing public confidence in, and acceptance of, the overall projects. This consultation will be ongoing. The nature of the consultation will be continuously monitored and modified to best suit the ongoing needs of the projects and the stakeholders at that time. It is noted that ongoing public and stakeholder consultation is also likely to be a requirement of the pre-application and application process under the Strategic Infrastructure Act; for these reasons, among others, the EirGrid Project Team will continue to proactively engage with stakeholders in relation to the proposed projects.

In line with the above, as the projects progress in the coming months more updates will become available. These updates will be available to download on the EirGrid website, or can be posted by request. Other forms of interaction will take place in formats that are deemed most effective and may include:

- Face to face meetings with individuals and groups;
- Email correspondence;
- Telephone calls;
- Written correspondence;
- Newspaper articles and advertisements; and
- Update leaflets and booklets.

It is intended that the result of the above and other activities undertaken by the EirGrid Project Team will help compile planning applications, which will ultimately result in projects that meet the needs of those projects in an optimum manner.

## **APPENDIX A**

### **[OPEN DAY CANCELLATION LETTERS]**



**CABRA CASTLE**

Kingscourt, Co. Cavan, Ireland.

Telephone: (042) 9667030 Fax: (042) 9667039

Email: sales@cabracastle.com

www.cabracastle.com

Monday 27<sup>th</sup> November 2007

TO WHOM IT MAY CONCERN:

Following on communications throughout the last week and particularly further to today's consultations with the local Garda Superintendent and Ms. Elizabeth Arnett of RPS Group, I hereby wish to confirm that Cabra Castle are cancelling the conference booking made by RPS Group for Eirgrid plc, scheduled at the hotel for Wednesday 28<sup>th</sup> November, 2007.

I regret this course of action and up until today was making every effort to facilitate this booking in every way possible. However, due to the health and safety concerns which have emerged, (as also highlighted by our own Insurers) we feel that Cabra Castle and Golf Course would be unable to safely accommodate the volume of numbers expected to attend the scheduled event.

Yours faithfully

HOWARD CORSCADDEN

Director



Kingscourt Castle Ltd.

Directors: A. Corscadden; P. Corscadden; H. Corscadden





Main Street, Athboy, Co. Meath. Tel.: (046) 9432283 Fax: (046) 9432255

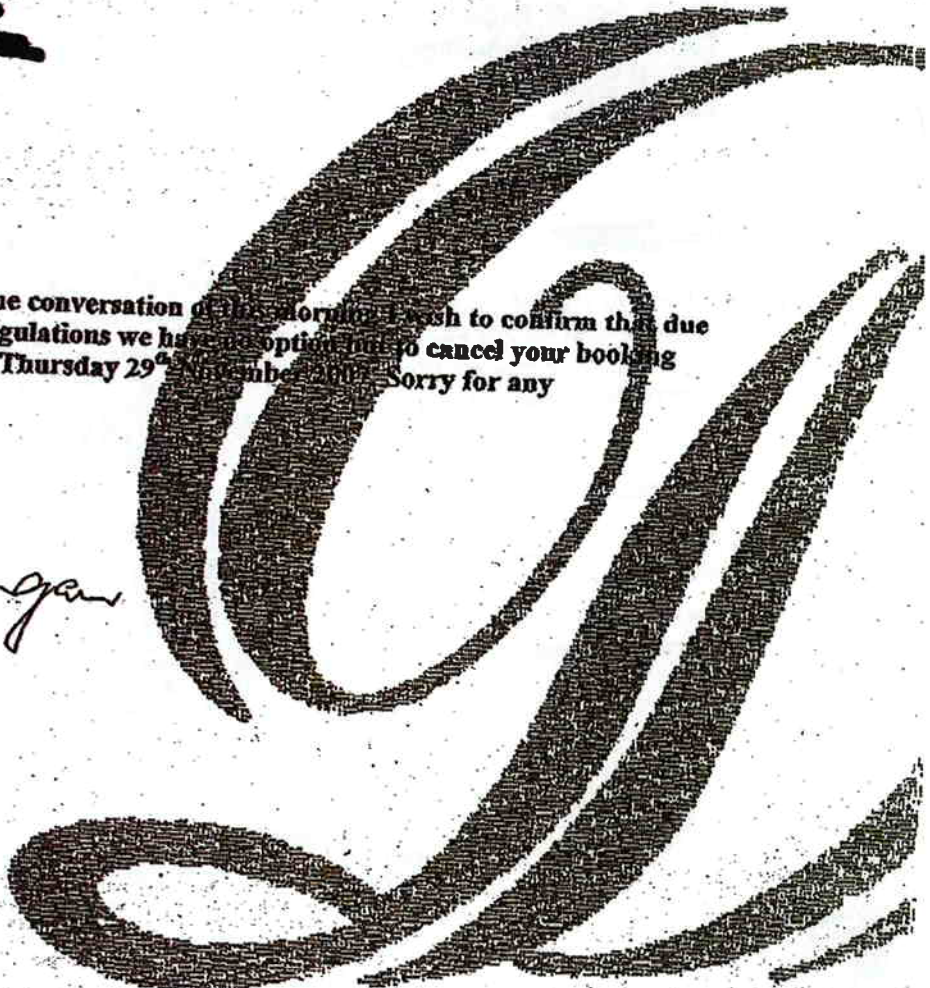
[REDACTED]

Dear [REDACTED]

Further to our telephone conversation of this morning I wish to confirm that due to Health and Safety regulations we have no option but to cancel your booking for your conference on Thursday 29<sup>th</sup> November 2007. Sorry for any inconvenienced cause.

Yours faithfully

*Sean Mangan*  
Sean Mangan  
General Manager



## **APPENDIX B**

### **[PROJECT INFORMATION MATERIALS]**





## MEATH-CAVAN 400KV POWER LINE

### **Proposed Route Corridor Options, Public Consultation**

October 2007



Part funded by  
EU TEN-E Initiative

# Who is EirGrid?

EirGrid plc, a state owned company, is the independent electricity Transmission System Operator in Ireland and the Market Operator in the wholesale electricity trading system. EirGrid's role is to deliver quality connection, transmission and market services to generators, suppliers and customers utilising the high voltage electricity system, and to put in place the grid infrastructure required to support the development of Ireland's economy. EirGrid develops, maintains and operates a safe, secure, reliable, economical and efficient transmission system. EirGrid is playing a key role in establishment of the new All-Island Market for Electricity, as well as developing a second North-South Interconnector.

## What's Happening?

EirGrid is planning two projects to facilitate cross-border sharing of electricity, promoting better competition and to ensure a future secure supply of electricity throughout the North East. The 2 projects are:

- 80km long 400kV Interconnector between Cavan and Tyrone
- 58km Woodland (Co Meath) to Kingscourt (Co Cavan) 400kV Power Line.

The 58km Woodland, Co Meath to Kingscourt, Co Cavan 400kV Power Line is necessary to strengthen the existing power supply in the North East due to recent increased development in the region. This project will connect the existing sub-station in Woodland, Co Meath to a proposed new sub-station near Kingscourt in Co Cavan.

Following extensive studies, route corridor options have been developed and are presented overleaf.

## Benefits

- Provide high quality bulk power supply for the North East
- Support growth in the region and ensure continuing reliability of supply.
- Boost existing industry in the North East when competing for business and inward development in the area.
- Guarantee security of supply for future decades - if nothing is done now, by 2012/13 there is likely to be insufficient network capacity required to supply demand in the North East
- Increase competition and therefore reduce the cost of electricity to customers.
- Increase reliability for the local network in the North East and for all electricity customers.

# How were the route corridors decided upon?

Seven key criteria were taken into account by the consultants when choosing possible route corridors for the power lines:

**Visual Impact:** An assessment of the of the visual impact of the proposal on the environment was carried out in order to minimise the impact

**Community:** an assessment of the local villages and communities was undertaken to reduce the proximity of the power lines to them and ensure minimal impact on lifestyles of those living and working in nearby communities.

**Ecology:** A review of conservation designated areas, including Special Areas of Conservation (SACs), Special Protection Area (SPAs) and Natural Heritage Areas (NHAs) was completed.

**Cultural Heritage:** Architectural and archaeological heritage sites, including recorded archaeological monuments and places, protected structures, and national monuments, were assessed in an attempt to minimise any impact.

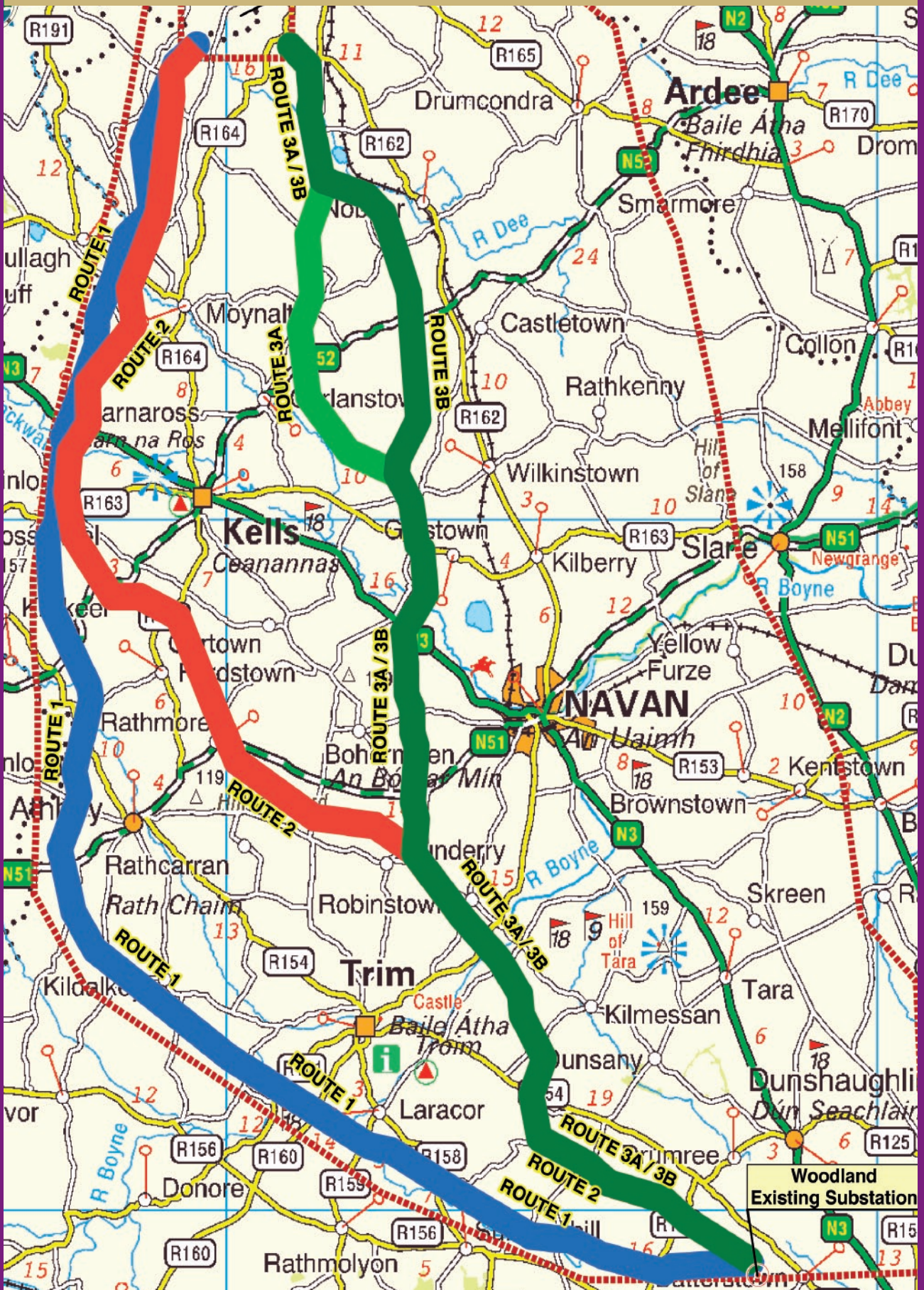
**Landscape:** A review of County Development Plans was undertaken in order to assess the numbers of scenic views, scenic routes, and vulnerable landscapes in the area.

**Geology:** Soil, subsoil and bedrock was used to determine significant types and their benefits and drawbacks.

**Water:** The surface water features were reviewed, as lakes are to be avoided and river crossings minimised.

All of the above constraints were taken into account in order to ensure that the route options were sited in the best possible location.

### Proposed Route Corridor Options for Meath – Cavan 400 kV Power Line





# Route Corridor Options

## **Meath-Cavan** **Route Option 1**

Route Option 1 runs to the western part of the study area, staying to the west of the towns of Trim, Athboy and Kells and approximately 5km north of the town of Ballivor and approximately 1km east of the town of Mullagh.

## **Route Option 2**

Route Option 2 runs between the central and western section of the study area, staying to the east of the town of Trim and Athboy, west of the town of Kells and then runs parallel to Route Option 1, running approximately 2.5km to the east of the town of Mullagh

## **Route Option 3**

Route Option 3 follows Route Option 2 initially before running in a due north direction, running to the west of the town of Navan and to the east of the town of Kells. Approximately 6km north of the N3, this route option splits into two options 3A and 3B, before joining together west of Whitewood Lough.

# Your views are important to us

We welcome all suggestions and queries. All submissions made and feedback collected during the public consultation on route selection will be used by the technical project teams to inform their decision on selecting the most appropriate route. All queries and submissions made will be dealt with in a confidential manner.

Please study the maps and tell us your views on the proposed route corridor options—you may use the enclosed feedback form or additional pages if you wish. All correspondence will be dealt with confidentially.

## What Happens Next?

- Following public consultation in October 2007, submissions made by the public, businesses and other organisations will be taken into account, and along with further technical and other studies, will help to determine a Preferred Route.
- It is hoped that a Preferred Route will be ready for presentation to the public in early 2008, after which it will likely undergo further studies before a planning application is prepared.
- The planning application will include preparing an Environmental Impact Statement (EIS) and consultation with landowners and the local community. The Environmental Impact Assessments (EIA) will assess the impact of the project on the local areas as it is a process for anticipating and, possibly, preventing, negative effects on the environment that may be caused by a proposed development or project.

## Keep informed

EirGrid is committed to ensuring that all members of the public are fully aware of the project and encourage you to participate in public consultation. If you would like to discuss the project or to meet with a member of the project team, please contact us by either telephone or email. Otherwise, keep an eye on the website for regular updates.

**[www.eirgrid.com](http://www.eirgrid.com)**

**Tel: 1890 25 26 90**

**email: [meathcavanpower@eirgrid.com](mailto:meathcavanpower@eirgrid.com)**









# CAVAN-TYRONE 400KV POWER LINE

## New North-South Interconnector

**Proposed Route Corridor Options,  
Public Consultation**  
October 2007



Part funded by  
EU TEN-E Initiative



# Who is EirGrid?

EirGrid plc, a state owned company, is the independent electricity Transmission System Operator in Ireland and the Market Operator in the wholesale electricity trading system. EirGrid's role is to deliver quality connection, transmission and market services to generators, suppliers and customers utilising the high voltage electricity system, and to put in place the grid infrastructure required to support the development of Ireland's economy. EirGrid develops, maintains and operates a safe, secure, reliable, economical and efficient transmission system. EirGrid is playing a key role in establishment of the new All-Island Market for Electricity, as well as developing a second North-South Interconnector.

## What's Happening?

EirGrid is planning two projects to facilitate cross-border sharing of electricity, promote better competition and to ensure a future secure supply of electricity throughout the North East. The 2 projects are:

- 80km long Cavan Tyrone 400kV Power Line – the new North-South Interconnector
- 58km Woodland (Co Meath) to Kingscourt (Co Cavan) 400kV Power Line.

A new 80km long 400kV Interconnector between Cavan and Tyrone will more than double the current power transfer capacity between the North and the South, 35km approximately will be in Northern Ireland and the remaining 45km approximately will be in the Republic of Ireland, routed from a proposed new substation near Kingscourt in Co Cavan, through Co Monaghan to a proposed new substation in Co Tyrone. This project is being undertaken in co-operation with Northern Ireland Electricity (NIE).

Following extensive studies, route corridor options have been developed and are presented overleaf.

## Benefits

- Support growth and development
- Boost existing industry in Cavan, Monaghan and N. Ireland when competing for business and inward development in the area.
- Ensure security of supply for the future
- Comply with European Union policy which states that links between electricity systems are a key way of ensuring secure and competitively priced electricity markets into the future.
- Facilitate the Single Electricity Market due to come into effect in Ireland later this year.
- Promote competition and better sharing of generation resources between North and South
- Fuel savings
- Fewer emissions
- Facilitate integration of wind generated energy
- Make more bulk high quality power available for the North East

# How were the route corridors decided upon?

Seven key criteria were taken into account by the consultants when choosing possible route corridors for the power lines:

**Visual Impact:** An assessment of the of the visual impact of the proposal on the environment was carried out in order to minimise the impact

**Community:** an assessment of the local villages and communities was undertaken to reduce the proximity of the power lines to them and ensure minimal impact on lifestyles of those living and working in nearby communities.

**Ecology:** A review of conservation designated areas, including Special Areas of Conservation (SACs), Special Protection Area (SPAs) and Natural Heritage Areas (NHAs) was completed.

**Cultural Heritage:** Architectural and archaeological heritage sites, including recorded archaeological monuments and places, protected structures, and national monuments, were assessed in an attempt to minimise any impact.

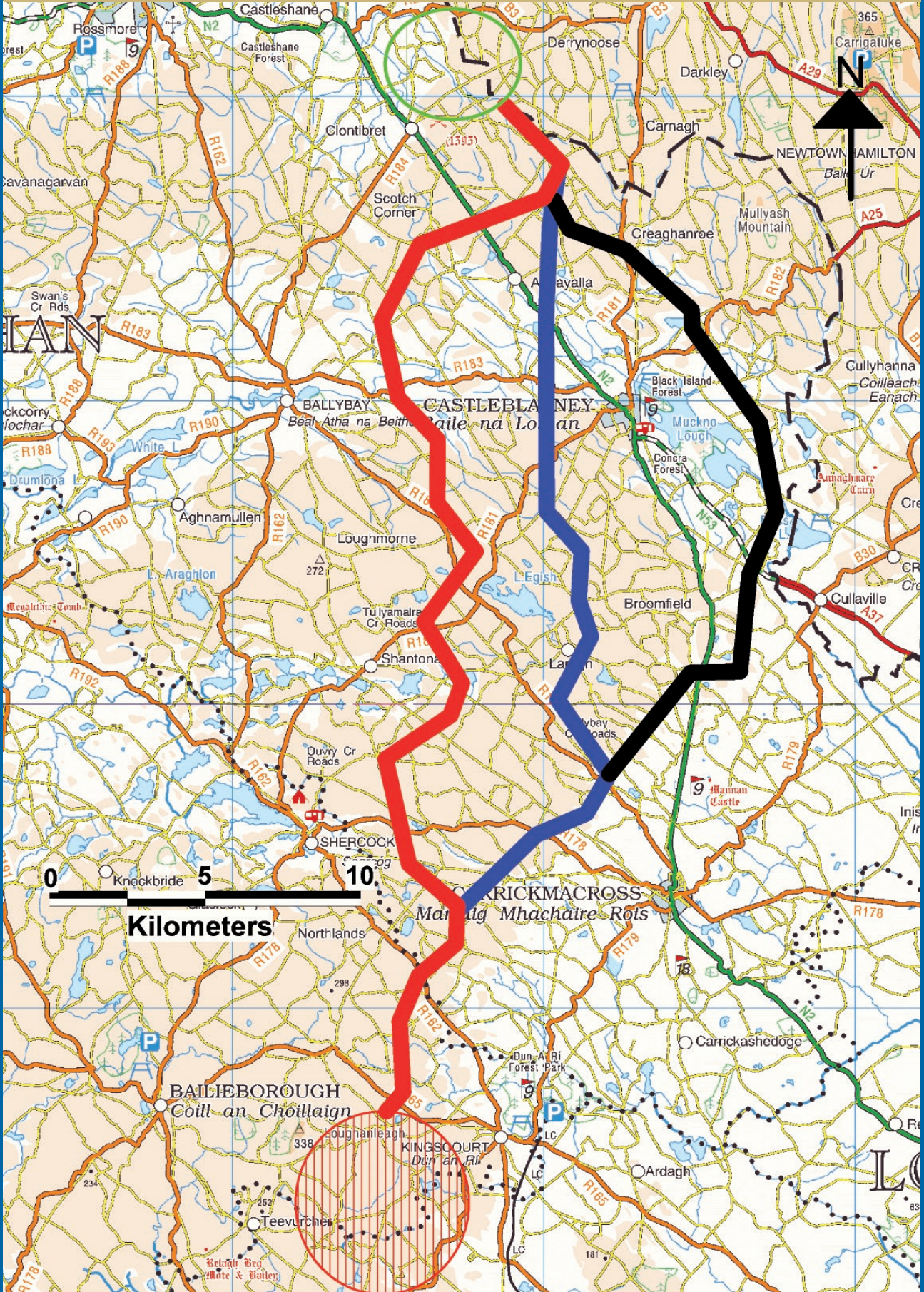
**Landscape:** A review of County Development Plans was undertaken in order to assess the numbers of scenic views, scenic routes, and vulnerable landscapes in the area.

**Geology:** Soil, subsoil and bedrock was used to determine significant types and their benefits and drawbacks.

**Water:** The surface water features were reviewed, as lakes are to be avoided and river crossings minimised.

All of the above constraints were taken into account in order to ensure that the route options were sited in the best possible location.

# Proposed Route Corridor Options for Cavan Tyrone 400kV Power Line new North-South Interconnector





# Route Corridor Options

## **Cavan - Tyrone** **Route Corridor A**

- Route corridor option A connects with the NIE proposal east of Clontibret
- From this point it crosses the N2 north of Annayalla and proceeds to cross the R183 west of the village of Doohamlet
- It continues in a south-easterly direction and crosses the R180 northwest of Lough Egish
- It then crosses the R181 between Lough Egish and Shantonagh to circumvent Shantonagh Lough
- It crosses the R178 approximately 3 kilometers east of Shercock to navigate around the lakes at Northlands and to cross the Cavan County Boundary
- Once it crosses the County Boundary along the R162, it travels in a southerly direction to finally cross the R165 and navigate towards the proposed 400kV substation to the west of Kingscourt Co. Cavan.

## **Route Corridor B**

- Route corridor option B travels in a north-south direction crossing the N2 to meander around Laragh Lough
- It proceeds in a southerly direction to cross the R183 and R161 approximately 3km west of Castleblayney
- It then passes to the east of Lough Egish, Laragh and west of Lisdoonan.
- It crosses the R180 approximately 4 km from Carrickmacross and travels southwesterly to cross the R178 to reconnect with the proposed route corridor Option A, east of Northlands.

## **Route Corridor C**

This proposed corridor deviates from the proposed route corridor A and B and traverses in the south-easterly direction around Lough Muckno to cross the N53 west of Crossmaglen

It would then cross the N2 before reconnecting with the proposed route corridor B option, south of Lisdoonan

# Your views are important to us

We welcome all suggestions and queries. All submissions made and feedback collected during the public consultation on route selection will be used by the technical project teams to inform their decision on selecting the most appropriate route. All queries and submissions made will be dealt with in a confidential manner.

Please study the maps and tell us your views on the proposed route corridor options—you may use the enclosed feedback form or additional pages if you wish. All correspondence will be dealt with confidentially.

## What Happens Next?

- Following public consultation in October 2007, submissions made by the public, businesses and other organisations will be taken into account, and along with further technical and other studies, will help to determine a Preferred Route.
- It is hoped that a Preferred Route will be ready for presentation to the public in early 2008, after which it will likely undergo further studies before a planning application is prepared.
- The planning application will include preparing an Environmental Impact Statement (EIS) and consultation with landowners and the local community. The Environmental Impact Assessments (EIA) will assess the impact of the project on the local areas as it is a process for anticipating and, possibly, preventing, negative effects on the environment that may be caused by a proposed development or project.

## Keep informed

EirGrid is committed to ensuring that all members of the public are fully aware of the project and encourage you to participate in public consultation. If you would like to discuss the project or to meet with a member of the project team, please contact us by either telephone or email. Otherwise, keep an eye on the website for regular updates.

**[www.eirgrid.com](http://www.eirgrid.com)**

**Tel: 1890 25 26 90**

**email: [CavanTyronelnterconnector@eirgrid.com](mailto:CavanTyronelnterconnector@eirgrid.com)**

# Feedback

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Name

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Address

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Telephone

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Email

**The Project Manager**  
**Cavan-Tyrone 400kV Power Line**  
EirGrid  
27 Lower Fitzwilliam St  
Dublin 2, Ireland

## What are your views?

Lined area for feedback input.





### CAVAN - TYRONE 400kV POWERLINE - New North-South Interconnector MEATH - CAVAN 400kV POWERLINE

## NEED FOR THE PROJECT & COST

### What's happening?

EirGrid is planning two projects to facilitate cross-Border sharing of electricity, promote better competition and to ensure a future secure supply of electricity throughout the North East.

The two projects are:

- The Cavan-Tyrone 400kV Power Line - the new North-South Interconnector, approximately 80km in length.
- The Woodland (Co Meath) to Kingscourt (Co Cavan) 400kV Power Line, approximately 58km in length.

### Why are these new Power lines needed?

- To increase the security and reliability of electricity supply to all households, businesses and other customers throughout the island of Ireland. To support growth and boost existing industry in the region and ensure continuing reliability of supply.
- To facilitate the use of even more renewable energy such as from wind farms, wave, tidal and biomass, to connect to the electricity network. The Irish government has set out an ambitious target of 33% renewable generation by 2020.
- The North-South Interconnector (Cavan-Tyrone 400kV line) will allow the new all-island wholesale electricity market to work efficiently. This will allow for increased competition in electricity supply thereby offering consumers choice and competitive prices.
- The Meath-Cavan 400kV Power Line is necessary to strengthen the existing power supply in the North East due to recent increased development in the region, and to ensure there is enough capacity to transmit bulk supplies of power in order to meet energy demand in the coming years. Demand is growing on average 4% per year so if nothing is done in the next number of years there will not be enough high voltage infrastructure to bring power to these areas.

## NEED FOR THE PROJECT & COST (Continued)

### How much will these projects cost?

- 1) The Cavan-Tyrone Interconnector will cost approximately €180 million.
- 2) The Meath-Cavan Power Line will cost approximately €100 million.

These approximate figures are initial estimates for the total project.

### Who pays for the project?

- 1) The European Union Trans-European Network for Energy has funded 50% of the stage 1 phase (i.e. to Planning) for both the Meath-Cavan Power Line and the Cavan-Tyrone Interconnector.
- 2) The remainder of the cost of the stage 1 phase for the Meath-Cavan Power Line will be funded by EirGrid and is ultimately funded by the electricity consumer.
- 3) The remainder of the cost of the stage 1 phase for the Cavan-Tyrone Interconnector will be funded jointly by EirGrid and Northern Ireland Electricity and is ultimately funded by the electricity consumer in both jurisdictions.

ESB is the Transmission Asset Owner (TAO), while EirGrid is responsible for the development of the transmission

system. These activities are funded ultimately by all electricity customers through transmission use of system charges to generators and suppliers. The amount that EirGrid and ESB (TAO) can recover is regulated by the Commission for Energy Regulation (CER) through five yearly price controls that determine appropriate levels of capital and operating expenditure.

### What is EirGrid's role?

EirGrid plc, a state owned company, is the independent electricity Transmission System Operator in Ireland and the Market Operator in the wholesale electricity trading system.

- EirGrid's role is to deliver quality connection, transmission and market services to those who generate electricity, suppliers and customers utilising the high voltage electricity system, and to put in place the grid infrastructure required to support the development of Ireland's economy.
- EirGrid develops, maintains and operates a safe, secure, reliable, economic and efficient system to transmit electricity.
- EirGrid is playing a key role in establishing the new All-Island Market for Electricity, as well as developing a second North-South Interconnector.

## ROUTE CORRIDOR OPTIONS

### How were route corridors decided upon?

Seven key criteria were taken into account when choosing possible route corridors for the power lines:

- *Visual Impact:* An assessment of the visual impact of the proposal on the environment was carried out in order to minimise the impact
- *Community:* an assessment of the local villages and communities was undertaken to reduce the proximity of the power lines to them to ensure minimal impact

on the lifestyles of those living and working in nearby communities

- *Ecology:* A review of conservation designated areas, including Special Areas of Conservation (SACs), Special Protection Areas (SPAs), and Natural Heritage Areas (NHAs) was completed
- *Cultural Heritage:* Architectural and archaeological heritage sites, including recorded archaeological monuments and places, protected structures, and national monuments, were assessed in order to minimise any impact

## ROUTE CORRIDOR OPTIONS (Continued)

- *Landscape:* A review of County Development Plans was undertaken in order to assess the numbers of scenic views, scenic routes, and vulnerable landscapes in the area
- *Geology:* Soil, subsoil, and bedrock were used to determine significant types and their benefits and drawbacks
- *Water:* The surface water features were reviewed, as lakes are to be avoided and river crossings minimised

### What is the preferred route?

All of the route corridors that have been prepared are possibilities. EirGrid will announce the preferred routes early in 2008 and the public will have further opportunities to consider and comment on them.

### What is the length of the Meath-Cavan 400kV Powerline?

The route from Kingscourt to Woodland is approximately 58km; the line connects an existing substation at Woodland to a proposed new substation at Kingscourt.

### What will happen at the new substation in Kingscourt?

The main purpose of a substation is to connect together various transmission lines. This includes converting (transforming) voltage from the powerlines into a lower voltage that ultimately is supplied, via other substations, to customers' homes, businesses, etc.

### What is the length of the North-South Interconnector?

The route length from Kingscourt to the Border crossing point near Clontibret, Co. Monaghan, is approximately 45km in the Republic of Ireland.

### Where will the substation be located?

A substation will be located near Kingscourt, Co. Cavan close to the existing Flagford-Louth 220kV line. EirGrid is presently trying to acquire a site in this area. The station size will be approximately 240m x 220m (approximately 13 acres) in size and additional lands will be used for access and landscaping purposes.

### What impact will these projects have on the environment?

An Environmental Impact Assessment will be undertaken by EirGrid and this is an essential requirement of planning law and must accompany the application for planning permission.

There will be some impact on the environment but EirGrid will keep this to a minimum through a careful route selection process which takes into account all of the environmental and technical constraints.

## HIGH VOLTAGE TRANSMISSION LINES

### What is the function of the overhead powerlines?

The power lines carry electricity from the generators (such as Moneypoint, Poolbeg, Huntstown, wind farms etc.) into a substation where the electricity is transformed into a lower voltage that ultimately is supplied to customers' homes, businesses, etc. The power lines are supported by pylons.

### How were route corridors decided upon?

- The high voltage transmission system in Ireland is composed of 110kV, 220kV and 400kV lines, cables and substations.
- There are approximately 6,000km of high voltage lines in Ireland at present.
- It is proposed that the new transmission lines for these projects in the North East will be operated at a voltage of 400kV.
- There are currently 439km of 400kV lines in Ireland, running from Moneypoint in Co. Clare to Woodland in Co Meath and Dunstown in Co. Kildare.
- There are four existing 400kV substations - Moneypoint, Oldstreet, Dunstown and Woodland.

### Why use 400kV transmission lines?

These projects will link into the existing 400kV system. Demand for electricity is growing at 4% per annum and so significant additional electricity transmission capacity is needed to meet this demand. Given the required volume of power transfer required, a 400kV line was chosen because it:

- Can carry large quantities of power and so is more efficient than lower voltage lines
- Has strategic benefits and the ability to best meet technical and economic criteria
- Provides additional capacity that can be exploited at a later date by other users, thus avoiding the need for further expansion in future planning horizons

- Shows potential developers and industrialists that there is room for generator capacity in this area, which will enable and encourage further local development
- Will maximise power transfer in the Dublin to Louth corridor and therefore fully leverage interconnection with Northern Ireland, increasing the amount of power that can be accessed by either system operator on both sides of the border
- Opens up the network to competition, allowing producers in Northern Ireland and the UK to access to the Irish electricity supply market

### Where will the power come from?

The power ultimately comes from the generators i.e. the power generation stations and renewable energy sources such as wind, wave, biomass, etc. Generators are located throughout the island of Ireland such as in Poolbeg and Moneypoint.

### Will powerlines and pylons be built over my house?

No, power lines will not be built over houses. The pylons will be kept as far as possible from houses for amenity reasons i.e

- Visual Impact
- Community
- Ecology
- Cultural Heritage
- Landscape
- Geology
- Water.

### What are the standards for pylon/line distances from towns, villages, schools, etc?

One of the main constraints in route selection of overhead lines is avoiding existing residential developments such as houses, schools and hospitals, especially in light of extensive recent development. EirGrid aims to build the powerlines a minimum distance of 50 to 60 metres from existing dwellings to the centre of the line. In the vast majority of cases a much greater distance than 50-60 metres is achieved.

## HIGH VOLTAGE TRANSMISSION LINES (Continued)

### What type of support structures are being used to carry the power lines?

EirGrid is looking at using a variety of new steel lattice pylons with a view of choosing one which has a low visual impact on the environment. They will range from 28-43 metres high.

### What size is a pylon?

The pylons have a foot print (ground area) of about 10m x 10m up to 16m x 16m and range from 28 - 43 metres high.

### How far apart are the pylons spaced?

The maximum distance between 400kV pylons is 500 metres. On average 400kV lines are spaced an average of 350 metres from each other.

### What is the clearance above ground of the lines?

- Generally speaking the clearance (smallest distance) between the line and the ground is more than 11 metres.
- In the very worst case the clearance between the line and the ground is no more than 9 metres, and no more than 10 metres over major roads/railways, based on the maximum line operating temperature of 80 degrees Celsius coinciding with the least favourable weather case.

### Is there any noise from the lines?

There will be some noise from the line; however for the most part the noise will be below the existing level of background noise even in houses near the line. Projected noise levels will be included in the Environmental Impact Statement (EIS) being prepared for the planning application.

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## OVERHEAD V UNDERGROUND

### Why not build underground lines for these projects?

Undergrounding all or part of a Transmission Network presents problems for the secure and reliable operation of that network. The location and repair of faults on underground cables can take a number of weeks, depending on the type of fault and its location. For such an integral part of the transmission system, such a compromise to the security of supply would be unacceptable.

Industries are attracted to a region for many reasons, one of them being a dependable supply of electricity. New industries locating in Ireland discuss with EirGrid the terms, conditions, security of supply and the quality of the power being delivered. A Transmission System based

on circuits of underground cable would not provide the continuity or quality of supply necessary to attract the high quality type of industry being sought by the local development agencies such as the IDA.

### Are there any underground lines in Ireland?

In line with utilities worldwide, Ireland's transmission system is predominantly based on overhead lines. At present, the transmission system in Ireland is an AC (alternating current) system and comprises about 6,000km of overhead line and 100km of underground cable (of short individual lengths).

## OVERHEAD V UNDERGROUND (Continued)

### Why are the majority of powerlines in Ireland overhead?

There are a number of reasons why the transmission system is predominantly based on overhead lines. These include:

- An overhead line has several advantages compared with an underground cable, as an overhead line is faster and easier to maintain and repair plus it is not subject to damage from digging activities.
- Underground cable circuits are also more vulnerable to outside construction activities such as local building/road works and farming activities, which can result in excavation damage.
- An underground cable fault can take significantly longer to repair. Firstly, if the fault is not caused by a third party - or the third party has left the scene - the location of the fault has to be identified. An underground cable fault can therefore take weeks to repair as it can be difficult to locate the position of the fault and the repair process itself is slow. Such a situation could not be tolerated on major high voltage systems.
- If cables are laid under agricultural land or cross-country, the trench for the cables has an environmental and agricultural impact. Farming activities would be impeded and habitats across which the cable was laid would be disrupted. It would also be necessary to maintain permanent year round access for the heavy machinery needed to facilitate emergency fault repair. Even so access would be difficult when cables are under waterlogged fields in wintertime and this would further increase the repair time.
- There are two methods of connecting an overhead line section to an underground AC (alternating current) cable section - interface compounds or direct mounting on special interface towers.

Interface compounds would consist of large fenced compounds, with a ground-mounted electrical plant, such as cable sealing ends, surge arresters, high-frequency line traps and communications coupling equipment. Large portal structures would also be

required to take the connections from the overhead line end masts. These compounds would be far more visually intrusive than an overhead line mast.

- In certain cases it is possible to mount all of the cable interface hardware as described above on the overhead line pylon itself. Nonetheless, this still leads to a greater visual impact than the normal overhead line structures.
- If underground cables are laid along existing roadways instead of cross-country, traffic delays can occur due to construction during the trenching process and afterwards if repairs are required. After installation, high voltage underground cables cannot be disturbed and this could make it more difficult for road widening or other works.
- Underground high voltage AC (alternating current) cables are typically many times more expensive than the equivalent overhead line and electrically they present many technical difficulties. Maintenance costs are higher for an underground cable than an overhead line. Large amounts of AC underground cable would require reactive compensation to be installed to prevent excessive system voltages.

### What are the implications for the system of using underground cables?

Industrial and domestic customers require that the transmission system operates to very high levels of availability. One of the ways that EirGrid achieves this on our overhead line networks is by High Speed Auto Reclosing.

### What is High Speed Auto Re-closing?

- In case of overhead lines, the majority of faults (over 90%) are of a transient nature usually caused by lightning. In the event of a lightning strike, protection schemes at both ends of the line detect the fault and open the switches (breakers) to clear the fault. The breakers are then re-closed and the circuit switched back into service. All of this takes place in less than half a second and is called High Speed Auto Re-closing.

## OVERHEAD V UNDERGROUND (Continued)

- If the fault remains when the circuit is re-closed then the switches open again and stay open until the line is patrolled and the cause of the fault is identified and repaired.
- With underground cables all faults are permanent and the majority of faults are caused by third party activity usually somebody digging into the cable.
- Therefore when a fault is detected on an underground cable, the breakers open the circuit as in the case of overhead lines but do not re-close i.e. no attempt is made to return the cable to service. This is to prevent further damage and for safety reasons - EirGrid do not want to apply full voltage to somebody who may be in contact with the cable.
- Therefore in the case of any underground cable fault, EirGrid switch out the circuit and do not switch it back again until the circuit has been patrolled, the cause of the fault identified and repairs carried out.

In Dublin there are a number of 220kV underground transmission cables connecting the generation stations on the Poolbeg peninsula to the rest of the system. Reclosing as described above is not allowed on these circuits and if a fault does occur the circuit stays out of service until the fault has been found and repaired. Repairs to underground transmission system cables are highly specialised work and it is not uncommon for faulted circuits to be unavailable for several weeks. Similar situations apply in Cork.

### When and why are underground cables installed?

EirGrid uses underground cables where there is no other option e.g. in built-up areas or where it is the only practical option, for example on the proposed East-West (Ireland-Wales) undersea connection.

Under certain conditions EirGrid permit short underground cable sections at the end of an overhead transmission line, such as when one end of the underground cable must terminate in a transmission station. While this does have an impact on the circuit availability, the impact is limited because if the underground cable is at one end and a fault occurs on the circuit (the connection between transmission substations), modern protection equipment can be

programmed to discriminate whether the fault is on the line or on the underground cable section. For a fault on the overhead line section reclosing is permitted while if it is on the underground cable section reclosing is blocked.

### Is there an EU Directive banning overhead lines of this nature due for introduction in 2008?

No plans for any EU Directive banning overhead line construction have been announced or proposed by the European Commission. The reason why an overhead line is proposed here is because it will deliver the most reliable and economic method of transporting power for electricity customers. Overhead lines are the method used for 97 per cent of on-shore high voltage electricity transmission lines in Europe.

### What is the Ireland-Wales East-West project?

It is a link between two separate power systems, from Ireland to Wales under the Irish Sea using DC (direct current) technology. This will involve very expensive pieces of infrastructure, called converter stations, at both ends as well as the use of submarine cables.

### Why is EirGrid planning AC Overhead lines for the North East projects?

The proposed Meath-Cavan and Cavan-Tyrone 400kV projects will be integral to the All Ireland transmission system. Overhead line AC technology is used everywhere in the world. AC underground is not technically feasible for the length of 400kV line proposed for these projects and would cost many times more.

Direct Current technology would not be appropriate for these projects because it doesn't fulfil the function required; DC technology is not suitable for future system development and is expensive.

Given that the costs of completing these projects is ultimately borne by the consumers, EirGrid is responsible for ensuring that these projects are implemented in the most technical, economical, and reliable means possible taking into account the criteria mentioned detailed elsewhere in this document (see Route Corridors Options section).

## HEALTH & EMF

### What is EirGrid's position on health and power lines?

A debate about the possible effect on human and animal health of electric and magnetic fields (EMF) has continued since the 1970s. Since then, many thousands of studies have been undertaken all over the world to assess any potentially harmful effects from power lines, electrical appliances and domestic wiring.

EirGrid is satisfied from the totality of studies and the views of international authoritative agencies that the balance of evidence is that extremely low frequency (ELF) electromagnetic fields (EMF) do not have any adverse effect on health. The Irish network is in full compliance with the most up-to-date international and EU guidelines and recommendations relating to public and staff EMF exposure. The proposed new lines will also be in full compliance.

### What independent research has been carried out about EMF?

- Extensive worldwide research (at a cost of over €440m) has found no conclusive evidence to date proving that electric and magnetic fields from power lines [i.e. extremely low frequency (ELF) EMF] are harmful.
- A study carried out by the World Health Organisation (WHO) EMF Task Group concluded in 2007 that there are no substantive health issues related to Extremely Low Frequency (ELF) Electro Magnetic Fields (EMFs) at levels generally encountered by members of the public.
- The Irish Department of Communications reported independently on this issue and its conclusions were consistent with the above independent bodies.

### Are the guidelines used by WHO ten years old and therefore out of date?

The guidelines by WHO are reviewed regularly by that organisation's International Committee on Non-Ionising Radiation and no change has been made to the guidelines. See [www.who.int](http://www.who.int) for further information. All Irish power lines comply with the WHO levels and, in fact,

the levels of EMF from power lines in Ireland are far lower than those levels from appliances commonly used in homes throughout the country.

### The Draper Report is being quoted as conclusive proof that electromagnetic fields cause serious health risk. Is this true?

International research reviewed by the World Health Organisation, EU and Irish Government has shown that the levels of EMF which anyone in Ireland could be exposed to are safe. The researchers who produced the Draper Study in England and Wales stated that their results indicating a higher risk of childhood leukaemia were not supported by convincing laboratory data or any accepted biological mechanisms. No change in international EMF limits has been implemented as a result of the Draper Report.

### What is EirGrid doing about EMF?

EirGrid recognises that some individuals are genuinely concerned about issues regarding EMF and health and we are committed to addressing these concerns by continuing to:

- Design and operate the transmission system in accordance with the most up-to-date recommendations and guidelines of the various expert and independent international bodies.
- Closely monitor engineering and scientific research in this area.
- Provide advice and information to staff and the general public on this issue.

### Where can I find out more about EMF?

For more information you can download our brochure 'Information on Electric and Magnetic Fields' from [www.eirgrid.com](http://www.eirgrid.com).



## THE PLANNING PROCESS

### Who will EirGrid apply to for planning permission for these projects?

Applications for planning approval for both projects with accompanying Environmental Impact Statements will be made directly to An Bord Pleanála in 2008, under the Strategic Infrastructure Act 2006.

Everybody, including state and semi-state bodies, seeking permission for strategic infrastructure projects of national importance must first apply to the Strategic Infrastructure Division of An Bord Pleanála for a decision on whether the particular project is of strategic importance. EirGrid has already held pre-application consultations with the Strategic Infrastructure Division of An Bord Pleanála in respect of these projects and they have confirmed that they are of strategic importance and fall under the remit of the Strategic Infrastructure Act. Therefore EirGrid will apply to An Bord Pleanála for this approval.

### Will the public be consulted before a planning application is made?

The public, the local authorities and interested stakeholders are being consulted and their views will be taken into account in respect of the application that is submitted.

A preferred route for each project will be chosen in early 2008. Public consultation will continue on these projects until planning applications are made later in 2008 to the independent planning authorities who will in turn examine all issues.

### Has EirGrid already applied for planning permission to build these overhead lines?

We will not be applying for planning permission until later in 2008, so all concerned people will have information to enable them to make submissions or objections as a part of the independent planning permission process.

### Can the public make submissions to the planning authorities?

Members of the public have seven weeks to make submissions to the planning authority from the date of the application. More information on the planning process is available on [www.pleanala.ie](http://www.pleanala.ie) or at [www.eirgrid.com](http://www.eirgrid.com).

### What is the Strategic Infrastructure Act?

The Strategic Infrastructure Act 2006 amended the Planning and Development Act 2000 to provide for the introduction of a 'strategic consent process' for strategic infrastructure of national importance provided by statutory bodies and private promoters. The Act provides a service for all stakeholders, infrastructure providers, state bodies and general public through:

- a single stage process of approval of projects
- a rigorous assessment of all projects including their environmental input
- full public consultation

The application must be made by way of the full completion of the application form to An Bord Pleanála. The sequencing of the application process and the content of the public notice as set out at section 182A of the Planning and Development Act 2000 and article 214 of the Planning and Development Regulations, 2006.

### Will the public be able to make submissions to An Bord Pleanála?

- An Bord Pleanála requires as a minimum that the public notice of the application would be in two newspapers circulating in the area to which the proposed development relates.
- The documentation relating to the application is to be available for public inspection at the offices of the relevant public authority, the offices of An Bord Pleanála and the offices of the applicant.

## THE PLANNING PROCESS (Continued)

- An Bord Pleanála also requires the prospective applicant (EirGrid) to provide a stand alone website containing all of the application documentation. The documentation on the website should be in a read only format whereby members of the public can download/view information in relation to the application.
- The time period for making submissions by the public is to be at least seven weeks from the date the documents become available for inspection. An Bord Pleanála requires that the public notice must indicate the time and date deadline for making submissions to them

### Where can I find out more information about the planning process?

More information on the planning process is available on [www.pleanala.ie](http://www.pleanala.ie)

### What permission does EirGrid need to enter land?

As agreed for transmission system reinforcements, ESB carries out the construction works in accordance with the planning approval obtained by EirGrid. ESB's entry onto lands is covered by the Irish Electricity Supply Acts (1927 and subsequent amendments). These acts contain a legal right for ESB to enter onto lands to erect overhead lines subject to a requirement to inform the landowner in advance of construction by a statutory wayleave notice giving ESB's intention to erect an overhead line across their lands. The right of landowners for compensation and access to the Property Arbitration Court was confirmed in the 1985 amendment.

### What process will be followed if the proposed route goes through my land?

- In practice, landowners are made aware of the proposed line during the consultative/planning process and the survey/design stage.
- Wayleave notices and a six inch map of the area showing structure locations are formally issued to landowners following receipt of a final grant of planning approval for the overhead line project.
- The wayleave notice must be served on every landowner and on every occupier of land crossed by the proposed line, even if there is no structure on their land.

### What compensation will I receive?

Compensation is paid to landowners on whose property the overhead line is erected. This is done in accordance with long established agreements with the Irish Farmers Association.

All agreements with landowners are negotiated individually since the effect of the transmission line on each landowners' property will vary from landowner to landowner. EirGrid will endeavour to complete negotiations with each landowner prior to construction.

## PUBLIC CONSULTATION PROCESS

EirGrid would not be making an overhead line proposal for these projects if it was not convinced that this method was the best way to ensure supplies of safe, reliable, secure and economic power for many years ahead in the North East. The proposal is subject to public consultation and the final decision on the project will be made - not by EirGrid - but by independent planning authorities who will examine all issues.

There are many ways for any interested individual or group to raise their concerns and EirGrid is committed to ensuring that all members of the public are fully aware of the project. We encourage everyone to participate in public consultation. There are a number of methods available:

### Website

Up-to-date information on both projects is available on EirGrid's website, [www.eirgrid.com](http://www.eirgrid.com). This site will be updated regularly to keep everyone informed of the progress of the project.

### Email & Phone

Dedicated email addresses ([meathcavanpower@eirgrid.com](mailto:meathcavanpower@eirgrid.com) and [cavantyroneinterconnector@eirgrid.com](mailto:cavantyroneinterconnector@eirgrid.com)) and a phone line (1890.25.26.90) have been set up to deal with any queries or issues people may have.

### Feedback Form

Fill out the feedback form (available at the Open Days or at [www.eirgrid.com](http://www.eirgrid.com)) and return it, highlighting your queries / concerns.

### Meetings

If you would like to talk directly to the project team regarding either project, we would be happy to arrange such a meeting. Please use any of the above communication methods to make such an appointment.

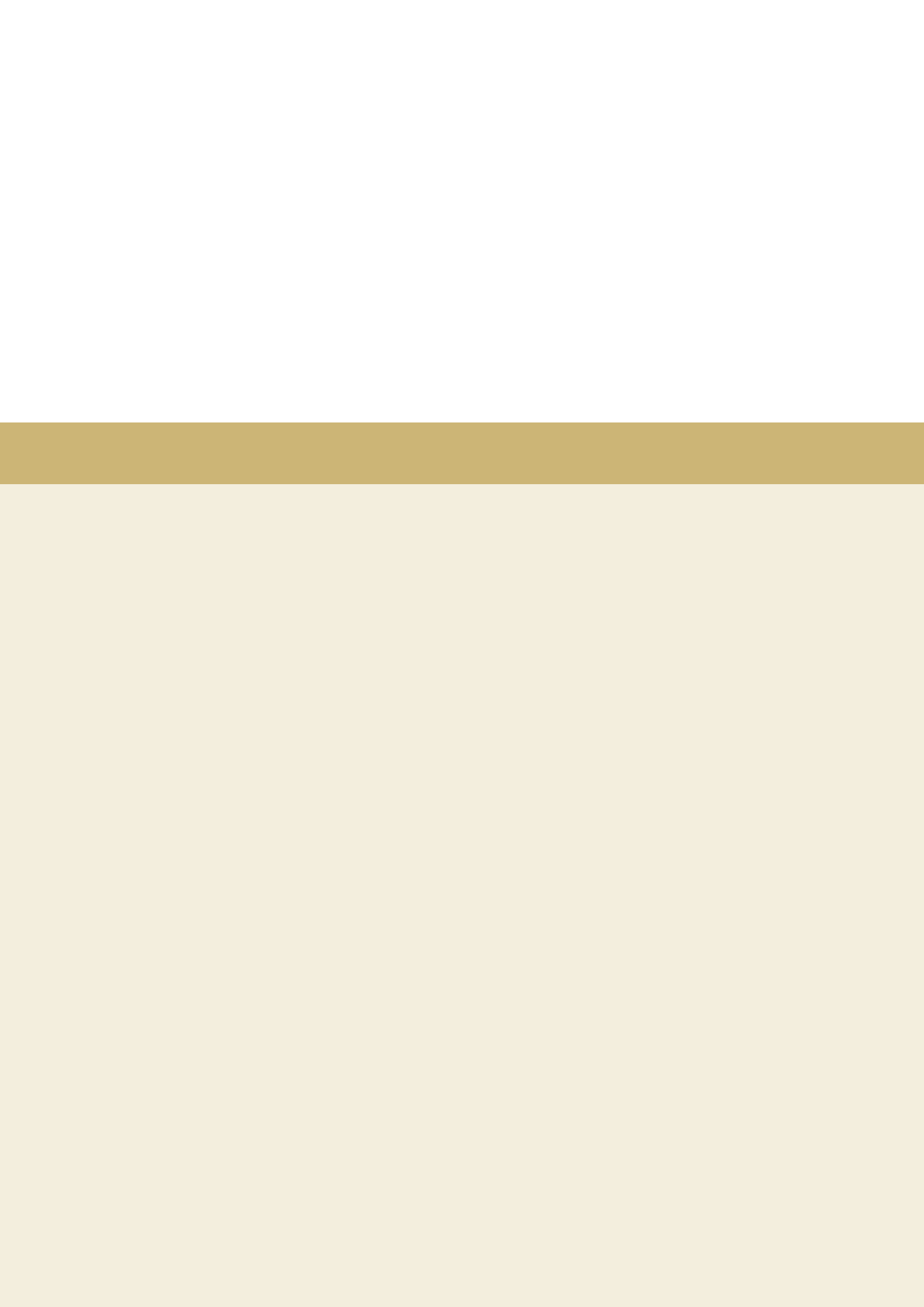
### Elected Members Meetings

EirGrid has made a series of presentations with the elected members of Meath, Cavan, and Monaghan. This was an opportunity for the local representatives to be made fully aware of the project, after which they were able to advise their local stakeholders on the benefits and drawbacks of the projects.

We are keeping in regular contact with Elected Members are providing briefings and information/materials to them as required.

### Planning Process

A preferred route for each project will be chosen in early 2008. Public consultation will continue on these projects until planning applications are made later in 2008 to the independent planning authorities who will in turn examine all issues. Subject to planning permission, construction would not take place until 2009. Members of the public have seven weeks to make submissions to the planning authority from the date of the application. More information of the planning process is available on page 9 of this leaflet or visit [www.pleanala.ie](http://www.pleanala.ie)





# INFORMATION ON ELECTRIC AND MAGNETIC FIELDS

## Contents

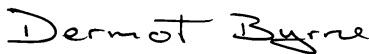
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### Introduction

**E**irGrid regards the protection of the health, safety and welfare of its staff and the general public as a core company value. It is EirGrid's policy to design and operate the transmission network to the highest safety standards and to comply with the most up-to-date international guidelines and recommendations.

A debate about the possible health effects of electric and magnetic fields associated with electric power systems on humans and animals has continued over the last number of decades. Despite extensive worldwide research, international review bodies have found no conclusive evidence that exposure to electric and magnetic fields encountered in normal living and working conditions are harmful to public health.

EirGrid continues to review new developments and research findings and is satisfied from the totality of studies and the views of authoritative bodies that the balance of evidence is that electric and magnetic field emissions from electric power systems do not cause adverse effect on health.



Dermot Byrne, Chief Executive, EirGrid

However, EirGrid recognises that some individuals are genuinely concerned about issues regarding electric and magnetic fields and health. The quality of you and your family's living and working environment, along with the welfare of livestock and farm crops is of the utmost importance to us at all times.

We are committed to addressing your concerns in an open manner. To assist in this process we are providing you with this booklet on electric and magnetic fields. We hope you find it useful and that it provides answers to questions currently being asked on this issue.

We acknowledge the obvious health, social and economic benefits that electric power brings to society and reaffirm our commitment to design and operate the electricity transmission system that facilitates these benefits in a safe, reliable and economic manner.



### What is a field?

A field describes the influence of an object on its surrounding space. For example, a temperature field may exist around a hot object. Within nature, a number of electric and magnetic fields occur. The earth is itself an immense natural magnet with magnetic poles near the north and south poles

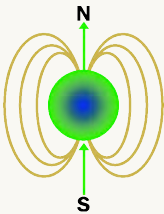


Fig 1 Earth's magnetic field

(Fig 1 *Earth's magnetic field*). This permits the use of a compass for accurate direction finding.

Electricity is a natural

phenomenon which occurs as lightning and within the human body as electric fields and currents which allow information to flow within cells and tissues. Apart from these natural phenomena, electric and magnetic fields are produced wherever electric power is in use.

In Ireland, electricity varies at a power frequency of 50Hz (i.e. alternating back and forth 50 times each second) and produces characteristic electrical and magnetic fields. At home and at work, similar fields are produced by wiring and by electrical appliances in everyday use.

### What is an electric field?

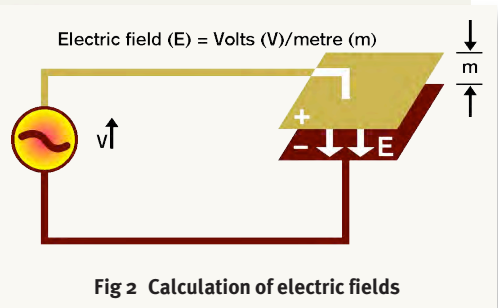


Fig 2 Calculation of electric fields

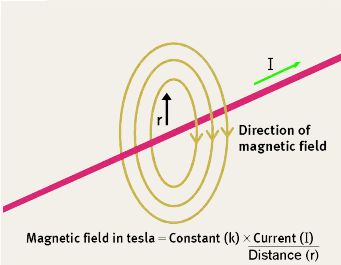
An electric field is produced within the surrounding area when voltage is applied to a conductor (or wire). Just as the area around a hot-water pipe is affected by the temperature of the pipe, the area surrounding an electrical conductor is influenced by the conductor voltage. The strength of an electric field at a given location depends on two factors — the level of voltage applied to the conductor and the distance from it. The magnitude of an electric field is measured in volts (or thousands of volts – kilovolts) per metre. This is written as V/m or kV/m (see Fig 2 *Calculation of electric fields*).





### What is a magnetic field?

Magnetic fields are produced where electric current is present. The strength of a magnetic field at a given location depends on the level of current flowing in the conductor or wire and the distance from it.



Magnetic fields are normally expressed in terms of a quantity called the magnetic flux density, expressed in terms of tesla (T).

Fig 3 Calculation of magnetic fields

$$\text{Magnetic field in tesla} = \text{Constant } (k) \times \frac{\text{Current } (I)}{\text{Distance } (r)}$$

This relatively large unit is often expressed in submultiples such as microtesla ( $\mu\text{T}$  – one millionth T) (see Fig 3 *Calculation of magnetic fields*).

### Fields within the electromagnetic spectrum

There are many different sources of electric and magnetic fields and radiation. The sun heats the earth using electromagnetic radiation, vision is possible because of electromagnetic radiation, watching television and listening to radio are pastimes made possible by modern telecommunications and the ingenious use of electromagnetic fields. Not all these fields are the same, they are distinguished by their frequency which is measured in cycles per second or Hertz (Hz) (see Fig 4 *The electromagnetic spectrum*).

At the extremely low-frequency (ELF) end of the electromagnetic spectrum we find electric and magnetic fields typical of those associated with power lines.

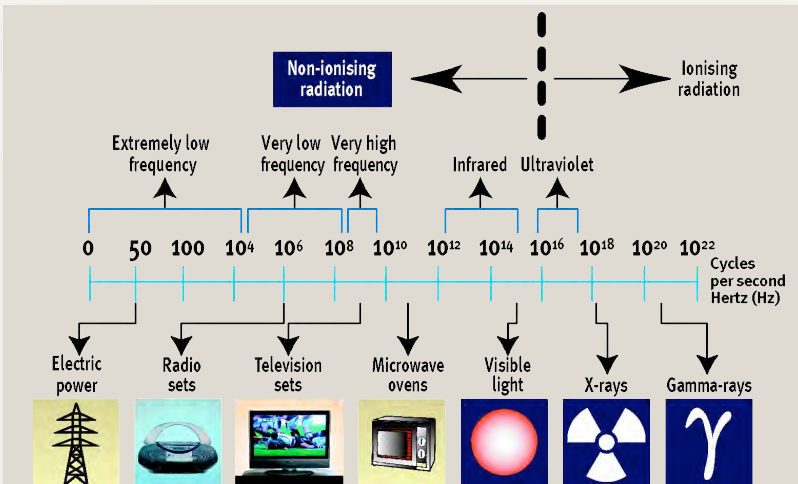


Fig 4 The electromagnetic spectrum

Because these fields operate at extremely low frequency, they contain very little energy and cannot directly break apart molecules.

Because of the characteristics of power lines, no electromagnetic energy radiates from the lines as a result of the surrounding electric and magnetic fields.

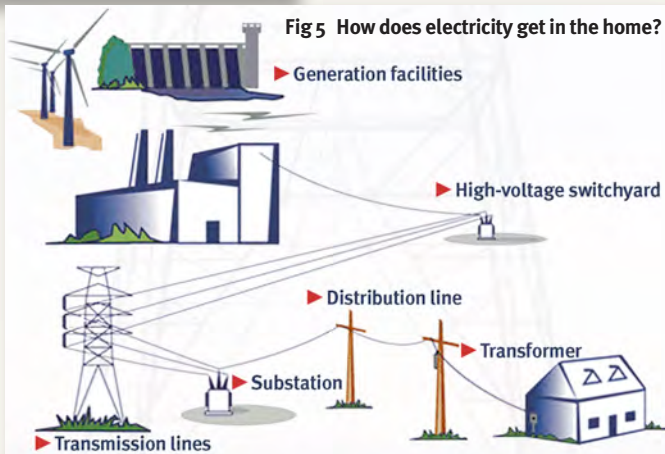
Moving up the spectrum we pass through radio, TV and microwave



frequencies into visible light. Further up, in the ultraviolet region of the frequency spectrum, electromagnetic radiation becomes 'ionising radiation'. Ultraviolet light, X-rays and gamma rays are ionising radiation and have sufficient energy to break apart the molecules which make up genes. Excessive exposure to these forms of radiation is dangerous and can lead to cell mutations and cancer.

### Electricity transmission infrastructure used in Ireland

EirGrid uses high-voltage transmission lines to transmit electric power to demand centres throughout the country. For over 75 years, 110kV lines have been used in Ireland, while 220kV lines are in operation for about 50 years. For the past 20 years, 400kV lines have also been in use. Internationally, 220kV transmission lines have been widely used since the 1920s.



### ELF EMF levels from overhead power lines

The electric field to which members of the public may be exposed from a power line is strongest directly under the line where the conductors are nearest the ground. This is usually near the middle of the span between two adjacent support structures. By moving away from a power line the strength of the electrical field decreases rapidly.

The normal maximum electric field

strength at ground level 30m from the centre of the lines ranges from 0.08kV/m for a 110kV line to 1.29kV/m for a 400kV line as shown in Table 1.

Magnetic fields produced by power lines are strongest directly under the line where the conductors are nearest the ground.

Typical magnetic flux densities at 30m from transmission lines in Ireland are shown in Table 1 and range from 0.2 $\mu$ T for a 110kV line to 1.81 $\mu$ T for a 400kV line.

**Table 1** Typical electric field strength and magnetic flux density at 30 metres from overhead transmission lines in Ireland

Type of line	Electric field strength (kV/m)	Magnetic flux density ( $\mu$ T)
<b>110kV single circuit</b>	<b>0.08</b>	<b>0.2</b>
<b>110kV double circuit</b>	<b>0.043</b>	<b>0.1</b>
<b>220kV single circuit</b>	<b>0.359</b>	<b>0.71</b>
<b>220kV double circuit</b>	<b>0.219</b>	<b>0.41</b>
<b>400kV single circuit</b>	<b>1.29</b>	<b>1.81</b>
<b>EU/ICNIRP guideline</b>	<b>5</b>	<b>100</b>



### ELF EMF levels from underground cables

The method of construction of underground cables means that they do not produce external electric fields.

An underground high-voltage cable will produce a greater magnetic field directly above it than an overhead line will produce at ground level.

The magnetic fields fall more rapidly with distance to the sides. Typical magnetic flux densities at 5m from underground cables in Ireland are  $0.5\mu\text{T}$  for a 110kV cable and  $1.5\mu\text{T}$  for a 220kV cable.



### ELF EMF levels from substations

Transmission substations produce small fields with the maximum values generally occurring where the line(s) and/or cable(s) enter and exit the substation. Typical values are as per the values referenced above for transmission lines and cables.



### Baseline environmental conditions

As highlighted in a previous section, there are many different sources of EMF both naturally occurring and those generated wherever electric power is used.

The earth's magnetic field, which is due mainly to currents circulating in the outer layer of the earth's core, varies between approximately  $30\mu\text{T}$  at the equator to about  $60\mu\text{T}$  at the poles. This field may be distorted locally by ferrous minerals or by steelwork such as in buildings.

At the earth's surface there is also a natural electric field, created by electric charges high up in the

ionosphere, and varying between 100 and 150V/m in fine weather. Below a storm cloud containing large quantities of electric charge, the field may reach intensities up to 20kV/m over flat surfaces, while above hillocks or other irregularities or near the tops of objects such as trees, the field strength can be considerably higher. In mountains, for instance, the presence of these fields produces electrical discharges and crackling noises on sharp ridges and on the ends of icepicks.

Such electric and magnetic fields occurring naturally in the earth generally move in the same direction and are referred to as static or DC fields.

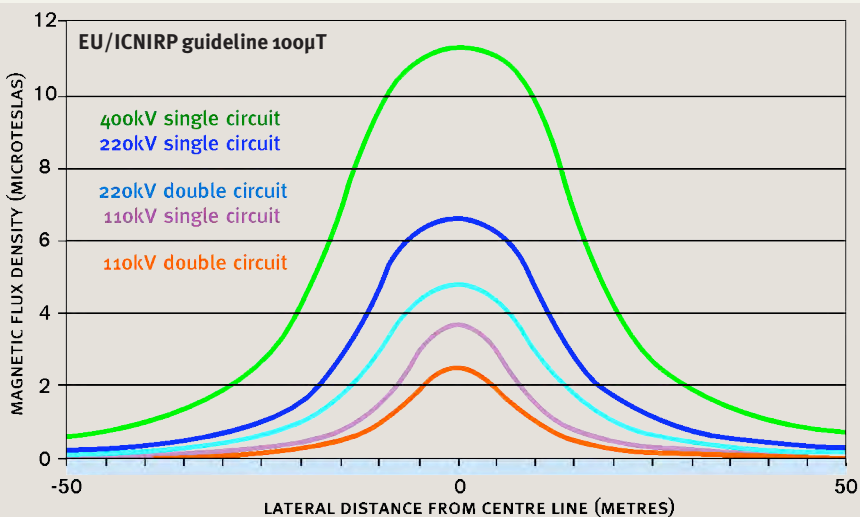


Fig 6 Typical magnetic field profile

### Other sources of EMF

In Ireland, the electric and magnetic fields produced wherever electric power is present vary at a power frequency of 50Hz (i.e., alternating back and forth 50 times each second). Such fields are referred to as alternating or AC fields and are classed as extremely low frequency (ELF).

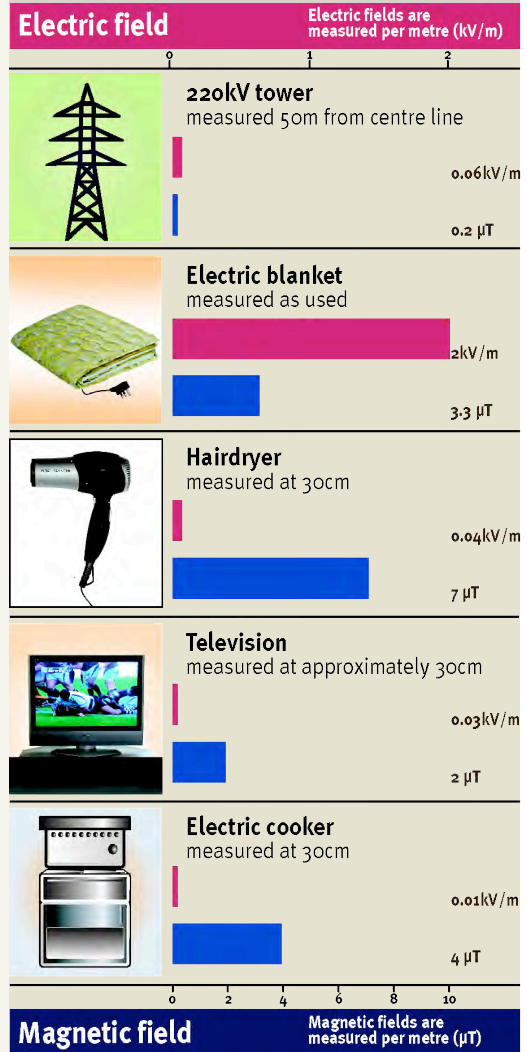
EMFs are produced in everyday situations by electrical wiring and electrical appliances. In many cases domestic electrical appliances and tools can generate much higher EMF levels in their close proximity than transmission lines at a nominal 50m distance away.

A comparison of the EMF levels from a 220kV transmission line and the fields generated by domestic appliances is shown in Table 2.

A difference between the magnetic fields produced by power lines and electrical appliances is that the magnitude of the fields produced by appliances falls off very rapidly with distance. The fall off from power lines is less rapid. The fields from power lines tend to be constant over time while the magnetic fields produced by appliances only arise when they are in use.

These ‘profiles’ in Figure 6 (see page 9) show the magnetic field near the ground for some typical overhead lines.

**Table 2** Typical value of electric and magnetic fields in the environment



### Investigations of EMF effects

A debate about the possible effect of electric and magnetic fields on human and animal health has continued since the 1970s. Since then, many thousands of studies have been undertaken all over the world to assess any potentially harmful effects from power lines, electrical appliances and domestic wiring.

Despite this extensive worldwide research (at a cost of over €440m) no conclusive evidence has been found to date proving that

electric and magnetic fields are harmful.

EirGrid is fully aware of the questions currently being raised and it is EirGrid's policy to design and operate the network to the highest safety standards and to continually review and update standards in the light of new developments and research findings. The following is a brief guide to the body of research undertaken worldwide.



### Human studies

Human volunteers have assisted in international studies. These detailed and thorough programmes exposed volunteers to electric and magnetic fields under strictly controlled laboratory conditions. The strengths employed were much stronger than people normally experience in their day-to-day lives – ranging up to 20kV/m and 5,000 $\mu$ T, with exposures of several hours. These presented much greater levels of exposure than the levels from transmission lines shown in Table 1 (see page 7). Under these conditions, a wide range of performance and blood tests were carried out.

No marked ill-effects of these very high levels of exposure were observed. Small physiological changes were seen, such as changes in heart rate. But these changes were well within the normal range of variation. Such temporary physiological changes are not regarded as adverse to health.

### Epidemiological studies

Epidemiology is the study of the distribution of disease in populations and of factors that influence the occurrence.

Substantial epidemiological investigations relating to exposure or presumed exposure to power-frequency electric and magnetic fields as a possible threat to health have been conducted and published in various parts of the world. Such studies are statistical in nature and require large sample populations. They have not been undertaken in Ireland because of this country's relatively small population.

Many external factors can influence an illness and it is generally not possible to make allowance for all of these factors. Epidemiological study results attempt to indicate to what extent some factor is statistically associated with the occurrence of an illness and can also indicate the strength of this association.

Association does not, however, prove cause. To establish cause – particularly when the association is relatively weak – scientists generally require a consistency in results between independently conducted epidemiological studies, a clear 'dose/response' relationship (i.e. as the dose gets stronger the response gets bigger), supporting evidence from animal studies and preferably an understanding of the underlying biological mechanism. Some epidemiological studies suggested possible associations.





Most of the concern about power lines and cancer stems from earlier epidemiological studies of people living near power lines. Results have not been consistent and have not been backed by laboratory studies.

**Despite extensive scientific research, none of these requirements have been met in any substantive form to allow any definite conclusions be made in the case of ELF EMFs.**

### **Recent major studies include**

■ The United Kingdom Childhood Cancer Study (UKCCS) was one of the world's largest epidemiological studies of childhood cancer, examining over 2,000 cases, and looked at a number of suggested causes for the cancer, including EMFs. The UKCCS was completed in 2000 and found no evidence that EMFs cause cancer.

■ In 2000, Professor Anders Ahlbom from Sweden led a pooled analysis of nine separate epidemiological studies and found that children living in homes with 24-hour average magnetic fields greater than or equal to  $0.4\mu\text{T}$  have an elevated risk of leukaemia.

The author of the report stated that 'the explanation for the elevated risk is unknown, but selection bias may have accounted for some of the increase.' None of the authoritative bodies responsible for EMF policy or exposure guidelines considered it necessary to reduce the exposure guidelines in light of this study on the basis that there is evidence to suggest that selection bias may account for some of the increase in risk in the study.

High-voltage power lines are only one source of these fields: earlier discussions highlighted the field levels from normal household appliances.

■ In 2005, a study (Draper *et al*) of childhood cancer in relation to distance from high-voltage power lines in England and Wales found that children who live within 200m of power lines had a higher relative risk of leukaemia. The report stated that the results of this study were not supported by convincing laboratory data or any accepted biological mechanisms.

The authors stated that: 'We have no satisfactory explanation for our results in terms of causation by magnetic fields or association with other factors.' They also stated that their results may be due to 'chance or confounding'. Confounding means that even if a statistical association is found between EMF and certain cancers, the cancer may be caused by some other factor that also happens to be associated with EMFs. Residential EMFs, for example, are also associated with socioeconomic status and lifestyle factors.



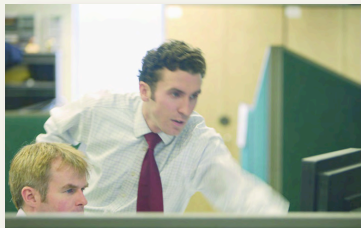
### Animal studies

Through the use of animals in carefully monitored laboratory conditions, it is possible to achieve good control of the exposure to EMF. Such studies are very valuable in the investigation of effects on human health. However, difficulties remain in determining the relevance of these studies to human exposure. Generally, animal studies have concentrated on the effects on the nervous system. Again, the results of such studies are inconsistent, showing wide variations. Some have reported effects, for example on behaviour and on the levels of certain hormones, such as melatonin (a hormone produced in the pineal gland of the brain), but with inconsistent results. No disease-causing effects have been established.

Extensive studies have also been carried out on farm animals in relation to reproduction and development. No harmful influences have been proven from exposure to EMF.

### Cell studies

Studies of cell and tissue cultures in the laboratory are often described as *in vitro* (in glass), while the term *in vivo* (in live state) is applied to



animal studies. *In vitro* research studies on electric and magnetic fields are numerous and results have been reported as producing both positive and negative results, making the overall picture both complex and inconclusive. As an added difficulty, it is not possible to predict by merely observing cell cultures whether effects if found will occur in animals or people. It is even more difficult to establish whether effects observed at the cell level would have any health implications. This matter is further complicated by the presence in whole organisms of control and repair mechanisms which are generally lacking in cell cultures and whose effect can not be studied in individual cell studies.

Certain reported effects appear to occur only within particular ranges or 'windows' of frequency, time or field strength – although no specific windows have yet been confirmed. However, under these conditions higher field exposures do not produce a greater effect.



It has also been shown that static magnetic fields comparable to the Earth's have also been reported to influence some cell experiments.

Although individual scientific studies may appear to be very convincing, it is important to remember that such studies only become an accepted part of science when they have been replicated in several laboratories and related to current understanding.

Few of the many reported *in vitro* effects of extremely low-frequency fields have been independently replicated. There is agreement in the scientific community that these fields do not cause cells to become cancerous.

A characteristic of agents such as ionising radiation, which do initiate cancer, is their ability to produce changes in the genetic material of the cell, either visible damage to chromosomes or genetic mutations.

Laboratory studies with electric and magnetic fields have not demonstrated such health risks.

There has been some speculation that electric or magnetic fields might accelerate or promote the development of cancers in cells which are or have become otherwise predisposed to cancer.

Despite extensive scientific research, this hypothesised promotion effect has not been established.

### Interaction mechanisms

Power-frequency electric and magnetic fields are incapable of disrupting molecules by ionisation or of causing any significant heating in tissue.

The only established mechanisms of action by these fields is via induced currents. Large induced currents can, for example, stimulate nerve and muscle cells. The international guidelines in place employ very large safety factors to ensure that these effects are not possible in individuals exposed to EMF levels at or significantly beyond the guideline levels.

Other research mainly centres on the effects at the cell surface or on the transport of ions which can act as biochemical 'messengers' across the cell membrane.

Several theoretical explanations of mechanisms have been proposed and it seems that more than one mechanism may exist. But such explanations are speculative and no comprehensive theory has been proposed which may be confirmed by laboratory experiment.

Laboratory studies have also failed to establish any mechanism whereby ELF EMFs could cause any form of ill-health effect. Despite extensive research scientists have been unable to determine a biophysical mechanism by which ELF EMF could cause cancer.

EirGrid and other national and international bodies are continuing to monitor research developments and to keep society fully informed.



Independent international medical and scientific bodies are continuing to review and monitor the possibility of health effects from exposure to extremely low-frequency electric and magnetic fields. The findings of these bodies carry considerable weight, as they reflect the judgements of groups of experts rather than the views of individuals.

### **International Agency for Research on Cancer**

In 2001, the International Agency for Research on Cancer (IARC) which is an agency of the World Health Organization (WHO), classified ELF magnetic fields as ‘possibly carcinogenic’ on the basis of ‘inadequate’ epidemiological evidence for most types of cancer and ‘inadequate’ evidence in animals, but ‘limited’ epidemiological evidence for childhood leukaemia. It was noted that no plausible biological explanation of the association can be obtained from experiments with animals or from cellular and molecular studies.

IARC said that the evidence on ELF electric fields was ‘inadequate’.

### **WHO EMF Task Group**

In October 2005, the WHO convened an international panel of experts to form the EMF Task Group. The EMF Task Group’s main objective was to review the scientific literature on the biological effects of exposure to ELF fields in order to assess any health risks from exposure to these fields and to use this health risk assessment to make recommendations to national authorities on health protection programs. The group published an Environmental Health Criteria (EHC) monograph of its findings in June 2007.

**The Task Group concluded that there are no substantive health issues related to ELF electric fields at levels generally encountered by members of the public.**

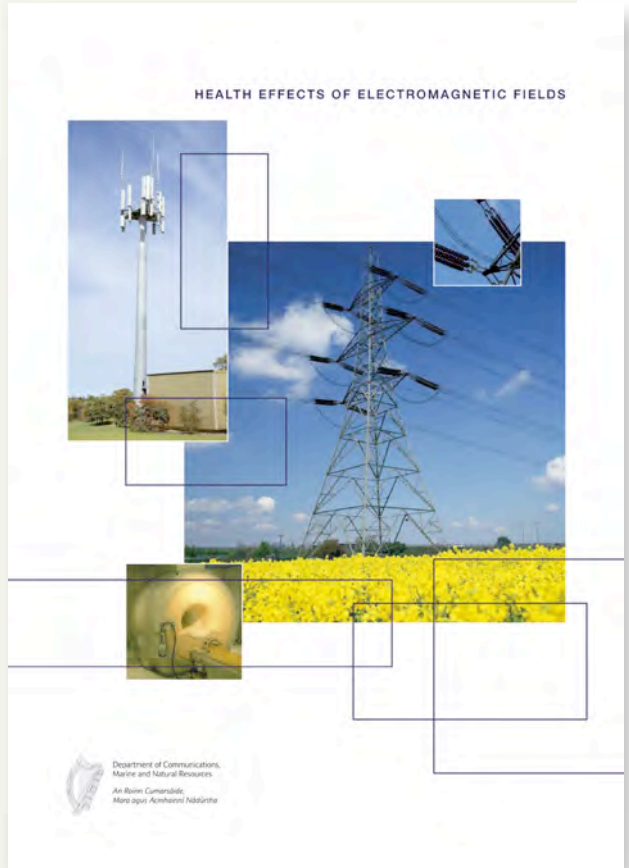
The monograph recommended that policymakers should establish guidelines for ELF field exposure for both the general public and workers. It stated that the best source of guidance for exposure levels are the international guidelines and cites the guidelines from the International Commission on Non-Ionising Radiation Protection (ICNIRP).



**Dept of Communications,  
Marine & Natural Resources**

In March 2007, the Department of Communications, Marine and Natural Resources published a report entitled *Health Effects of Electromagnetic Fields*, compiled by an international expert group. In relation to ELF EMF, the group state: ‘There is limited scientific evidence of an association between ELF magnetic fields and childhood leukaemia. This does not mean that ELF magnetic fields cause cancer, but the possibility cannot be

excluded. However, considerable research carried out in laboratories has not supported this possibility, and overall the evidence is considered weak, suggesting it is unlikely that ELF magnetic fields cause leukaemia in children. Nevertheless, the evidence should not be discounted and so no or low-cost precautionary measures to lower people’s exposure to these fields have been suggested.’



**A**ny guidelines for restricting the exposure of people to certain agents must rest on a solid scientific basis. The induction of currents in the human body is the only certain interaction of power frequency electric and magnetic fields.

The World Health Organisation, in its 1987 Environmental Health Criteria review of magnetic fields, stated that up to an induced current density of  $10\text{mA}/\text{m}^2$  is acceptable. Naturally occurring current densities within the body, caused, for example, by the action of heart



muscles, are also of similar value. No new evidence has warranted a change in this  $10\text{mA}/\text{m}^2$  threshold.

## ICNIRP Guidelines

In 1998, ICNIRP (International Commission on Non-Ionising Radiation Protection) issued guidelines for exposure to time varying EMF (up to  $300\text{GHz}$ ) which included power frequency exposure limits. These guidelines were adopted by the EU in 1999 and EirGrid fully comply with them.

In determining their guidelines, ICNIRP reviewed the body of scientific literature which existed on EMF and set the basic restriction for the induced current density in the body for occupational and general public exposure as  $10\text{mA}/\text{m}^2$  and  $2\text{mA}/\text{m}^2$ , respectively, based on avoiding known effects of high EMF levels on the body.

ICNIRP produced reference levels for both electric and magnetic field exposure because it is not possible to measure induced current density in the human body. For the general



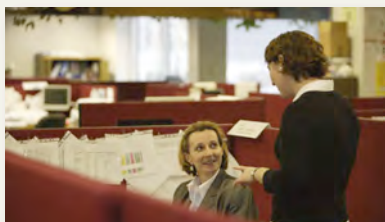
public the reference levels are 5kV/m and 100 $\mu$ T for electric and magnetic fields respectively.

If the EMF exposure level is less than the reference level then compliance with the basic restriction is assumed.

However, if exposure is greater than the reference level, this does not necessarily mean that the basic restriction is exceeded. The circumstances of the exposure need to be examined more closely and compliance should be investigated using the most up-to-date methods. The evaluation needs to determine whether the EMF levels are likely to induce a current density of 2mA/m<sup>2</sup>, i.e. to produce the basic restriction in the body.

Calculations from Dimbylow, published and peer-reviewed in

2005, and endorsed by the UK's Health Protection Agency (HPA), show an electric field level of approximately 9kV/m and a magnetic field level of 360 $\mu$ T corresponds to an induced current density of 2mA/m<sup>2</sup>. These figures can be considered to represent the basic restriction levels for EMF exposure and compliance with the ICNIRP restrictions can be assumed at those levels.



## MITIGATION MEASURES

In response to concern about the results of some epidemiological studies, some countries (e.g. regions of Italy, Switzerland, Netherlands) have reduced the magnetic field exposure limits (from the standard ICNIRP/EU guidelines) at some installations as a precautionary approach in relation to childhood cancer.

However, international authoritative bodies such as ICNIRP (on which the EU recommendations are based) continue to monitor the EMF research and have not considered it necessary to revise their exposure guidelines. The WHO EMF Task Group 2007 monograph commented on the costs of precautionary approaches to limiting ELF EMF exposure. 'These exposure limits should be based on a thorough examination of all the relevant scientific evidence' and refers to the ICNIRP guidelines as being designed to protect against the established effects.

With regards to having reduced exposure levels as a precautionary approach to the limited evidence for a link between ELF magnetic fields and childhood leukaemia, the WHO Task Group states that: '...it is not

recommended that the limit values in exposure guidelines be reduced to some arbitrary level in the name of precaution.'

The Task Group noted that: '...electric power brings obvious health, social and economic benefits, and precautionary approaches should not compromise these benefits. Furthermore, given both the weakness of the evidence for a link between exposure to ELF magnetic fields and childhood leukaemia, and the limited impact on public health if there is a link, the benefits of exposure reduction on health are unclear. Thus, the costs of precautionary measures should be very low.' The Department of Communications, Marine and Natural Resources report entitled *Health Effects of Electromagnetic Fields* published in March 2007 commented on precautionary measures and stated that: 'As a precautionary measure future power lines and power installations should be sited away from heavily populated areas to keep exposures to people low. The evidence for 50Hz magnetic fields causing childhood leukaemia is too weak to require re-routing of existing lines, and so these measures should only apply to new lines.'

EirGrid's standard route planning criteria complies with all authoritative international and national guidelines for ELF EMF exposure and generally seeks to avoid heavily populated areas on visual and amenity grounds as far as is reasonably possible.





**E**irGrid regards the protection of the health, safety and welfare of its staff and the general public as a core company value in all its activities. It is EirGrid's policy to design and operate the network to the highest safety standards and to continually review and update standards in the light of new developments and research findings.

Independent and authoritative international and national review panels of scientific experts have reviewed studies on possible health effects. These have found that it has not been established that power frequency electric and magnetic fields encountered in normal living and working conditions cause adverse health effects in humans. Having reviewed the research, EirGrid will continue its policy of adhering to the international and national standards and guidelines with which the entire network complies.

However, EirGrid recognises that some individuals are genuinely concerned about issues regarding

electric and magnetic fields and health. EirGrid is committed to addressing these concerns by continuing to:

- Design and operate the transmission system in accordance with the most up-to-date recommendations and guidelines of the various expert and independent international bodies.
- Closely monitor and support engineering and scientific research in this area.
- Provide advice and information to staff and the general public on this issue.

EirGrid hopes that this booklet has been informative and that it provides a greater understanding of electric and magnetic fields.



## GLOSSARY OF TERMS USED IN THIS BOOK

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<b>AC</b>	Electrical circuits where the voltage and current alternate direction, in Ireland at 50 times per second 50 Hertz (Hz)
<b>Carcinogenic</b>	Causing cancer
<b>Chromosomes</b>	The part of a cell involved with cell division and hereditary characteristics
<b>Current</b>	The movement of an electrical charge analogous to the rate of fluid flow in a pipeline
<b>Electric fields</b>	Invisible fields of force where voltage is present
<b>Electricity</b>	A form of energy created by the flow of current or the presence of voltage
<b>Epidemiology</b>	A type of research that tries to find statistical links between the occurrence of specific diseases and people's exposure to possible causes
<b>Extremely Low Frequency (ELF)</b>	Frequencies found at the end of the electromagnetic spectrum that contain very little energy and cannot directly break molecules apart, i.e., non-ionising. Electric power operates at ELF levels
<b>Frequency</b>	The number of repetitions per unit time of a complete waveform
<b>Induced current</b>	Current which flows in a body as a result of an interaction with an electric or magnetic field
<b>Ionising radiation</b>	Radiation, such as X-rays, which has sufficient energy to break molecular chemical and electrical bonds
<b>Magnetic fields</b>	Invisible fields of force found where electric current is present
<b>Melatonin</b>	A hormone produced in the pineal gland in the brain
<b>Molecule</b>	The smallest particle of a substance that retains the properties of that substance
<b>Power frequency</b>	The type of electric power that is used in Ireland is 50Hz, which current alternates back and forth 50 times per second
<b>Radiation</b>	Any of a variety of forms of energy propagated through space
<b>Voltage</b>	The measure of potential strength of electricity. Voltage in a power line is analogous to pressure on a pipeline

## ADDITIONAL REFERENCES

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Further information on EMF can be found on the following Internet sites:

**EirGrid web site**

<http://www.eirgrid.com>

**WHO EMF web site**

<http://www.who.int/mediacentre/factsheets/fs322/en/index.html>

[www.cie.iarc.fr/htdocs/indexes/vol80index.html](http://www.cie.iarc.fr/htdocs/indexes/vol80index.html)

**International Commission on Non-Ionising Radiation Protection**

<http://www.icnirp.de/>

**IARC**

<http://monographs.iarc.fr/ENG/Monographs/vol80/volume80.pdf>



EirGrid hopes that this booklet has been informative and that it provides a greater understanding of electric and magnetic fields

### **Further information**

If you require further information please contact:

**EirGrid plc**

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Dublin 2, Ireland

Telephone +353-1-702 6642  
(Customer Relations)

Fax +353-1-661-5375

Email [info@eirgrid.com](mailto:info@eirgrid.com)

October 2007

# Who is EirGrid?

EirGrid plc is a state owned company and is responsible for managing the national electricity transmission grid/system. Electricity is transported in bulk to all regions via the transmission system from power generators (ESB, wind-farms etc). EirGrid develops, maintains and operates a safe, secure, reliable, economical and efficient system to transmit electricity.

## What are the two projects:

- The Cavan Tyrone 400kV Power Line (80km)
- The Woodland (Co Meath) to Kingscourt (Co Cavan) 400kV Power Line, (58km)

## Why are these projects necessary:

1. To increase the security and reliability of electricity supply: increase capacity to avoid future shortages; support growth and boost existing industry in the region.
2. To facilitate the use of even more renewable energy such as from wind farms, waves, tidal and biomass etc.
3. The Cavan Tyrone line will contribute to the all island wholesale market, increase competition in electricity supply and will result in more consumer choice and competitive prices.



## Contact Us:

To give us your feedback on the new power lines, there are a number of methods available to you:

### Telephone

Lo call 1890 25 26 90

You can contact us on this information line between 9am-5pm (Monday-Friday).

If the line is busy please leave your name and number and you will be called back within 24hrs or on the next business day

### Email addresses

MeathCavanPower@eirgrid.com

CavanTyronelnterconnector@eirgrid.com

### Website

Visit [www.eirgrid.com](http://www.eirgrid.com)

This website is regularly updated to keep you informed of the progress of the project

Dear Householder,

EirGrid is planning two vital power line projects in the North East of Ireland. This leaflet is to help answer questions you may have and direct you to further information should you need it.



Part funded by  
EU TEN-E Initiative

## Health and electricity

Many thousands of studies have been undertaken all over the world to assess any potentially harmful effects from power lines.

The view of international authoritative agencies is that extremely low frequency (ELF) electromagnetic fields (EMF) do not have any adverse effect on health.

### What independent research has been carried out about EMF?

- Extensive worldwide research, at a cost of over €440m has found no conclusive evidence to date proving that electric and magnetic fields from power lines [i.e. extremely low frequency (ELF) EMF] are harmful.
- The Irish Department of Communications recently reported independently on this issue and their document is available on their website ([www.dcmnr.gov.ie](http://www.dcmnr.gov.ie)).
- Since it issued its Guidelines in 1998, the WHO has continued to monitor developments in electric and magnetic fields (EMF) but has not considered it necessary to revise the exposure guidelines.

Comprehensive information is available from the EirGrid EMF leaflet which you can download from [www.eirgrid.com](http://www.eirgrid.com) or use the contact details on this leaflet to order a copy to be sent out to you.

## Why not use underground lines for these projects?

### 1. Reliability

Both of these planned power lines are an integral part of the transmission system, long delays on repairs that can occur with underground cable could not be tolerated as it could result in power cuts in the region.

### 2. Security of supply

A dependable supply of electricity is necessary to attract the high quality type of industry being sought by development agencies and thus the risk of long delays on repairs would be a deterrent.

### 3. Cost

Given that the cost of completing these projects is ultimately borne by the consumers, EirGrid is responsible for ensuring that these projects are implemented in the most technically reliable and economical way possible.

EirGrid uses underground cables in specific circumstances such as for short distances in heavily built-up areas or, where it is the only practical option as in the proposed East-West Interconnector (Ireland – Wales) which is an undersea connection.

## Public Consultation

EirGrid are continuing a major consultation process. Check out [www.eirgrid.com](http://www.eirgrid.com) for details.

### Timing:

A preferred route for each project will be chosen in early 2008. Public consultation will continue on these projects until planning applications are made later in 2008 to the independent planning authorities who will in turn examine all issues. Subject to planning permission, construction would not take place until 2009.

### Can the public make submissions to the planning authorities?

Members of the public have seven weeks to make submissions to the planning authority from the date of the application.

More information on the planning process is available on [www.pleanala.ie](http://www.pleanala.ie) or in the FAQ on [www.eirgrid.com](http://www.eirgrid.com)

### Facts about electricity:

- A fluorescent tube will light up when held under a power line; this is a natural scientific phenomena demonstrating the presence of an electric field.
- No time restrictions exist for employees working in the vicinity of overhead lines since the EirGrid network is designed and operated in compliance with international and EU guidelines for EMF exposure.
- Ireland's first 400kV line was built over 20 years ago and there are currently 439km of 400kV overhead lines installed in Ireland to date.
- The high voltage transmission system (which comprises voltages of 400kV, 220kV and 110kV) can be seen in all counties throughout Ireland bringing electricity to homes, businesses and industries.
- 97 per cent of onshore high voltage lines in Europe are overhead lines and this is also true of other developed nations such as the US.
- We are not aware of any plans for any EU Directive banning overhead line construction.
- There is no evidence that EMF from these transmission lines has any adverse effects on flora or fauna.



## **APPENDIX C**

### **[ADVERTISEMENTS]**

# PUBLIC NOTICE

A new electricity power line is currently being planned for the North East, between Woodland in Co Meath and Kingscourt in Co Cavan. Proposed route and design options have been drawn up by EirGrid, following extensive studies over recent months.

The proposed options will be on public display in

- **Castle Arch Hotel, Trim, Co Meath**
- **on Thursday 11th October 2007**
- **from 3pm to 8pm.**

Members of the public are encouraged to come along to view the route and design options and maps, talk to the EirGrid project team and our consultants, and to tell us your views.

For further information visit [www.eirgrid.com](http://www.eirgrid.com)



Tel: 1890 252 690

email: [meathcavanpower@eirgrid.com](mailto:meathcavanpower@eirgrid.com)



# PUBLIC NOTICE

A new North-South electricity power line is currently being planned between Cavan and Tyrone. Proposed route and design options have been drawn up by EirGrid, following extensive studies over recent months.

The proposed options will be on public display in

- **Glencarn Hotel, Castleblaney, Co Monaghan**
- **on Tuesday 16th October 2007**
- **from 3pm to 8pm**

Members of the public are encouraged to come along to view the route and design options and maps, talk to the EirGrid project team and our consultants, and to tell us your views.

For further information visit [www.eirgrid.com](http://www.eirgrid.com)



Tel: 1890 252 690

email: [cavantyroneinterconnector@eirgrid.com](mailto:cavantyroneinterconnector@eirgrid.com)



# ELECTRICITY POWER LINE FOR THE NORTH EAST INFORMATION DAY

A new electricity power line is currently being planned between Cavan and Tyrone and it will cross the Border near Clontibret, Co Monaghan. The preferred route will be determined in early 2008, following extensive studies.

EirGrid is repeating its series of meetings to inform people about the project and you are invited to come along to have your queries answered by EirGrid's project team, either on a one-to-one basis or in discussion groups:

**ON: Tuesday, 27th November 2007**

**AT: 3pm - 8pm.**

**IN: The Four Seasons Hotel, Monaghan Town.**

## Open Day

Experts will be available to discuss the project and specific issues on a one-to-one basis, including:

- Health and Electricity (EMF)
- Why go overhead instead of underground?
- Proposed route corridors
- What next – the planning process
- Landowner compensation
- Any other issues

## Discussion Groups on EMF and Undergrounding

In response to requests from the public, focused discussions will be facilitated on the issues of Health and Electricity (EMF) and Overhead v Underground Powerlines.

These discussion groups will be held at 4pm, 5.30pm and 7pm.

Should you wish to participate, please register by emailing [CavanTyroneInterconnector@eirgrid.com](mailto:CavanTyroneInterconnector@eirgrid.com) or lo-call 1890 25 26 90.

**For further information:**

**Visit:** [www.EirGrid.com](http://www.EirGrid.com) **Lo-call:** 1890 25 26 90

**Email:** [CavanTyroneInterconnector@eirgrid.com](mailto:CavanTyroneInterconnector@eirgrid.com)

# PUBLIC NOTICE

Two major infrastructural projects are currently underway for Kingscourt and the surrounding areas:

- North-South electricity power line between Kingscourt and Tyrone
- new power line for the North East between Woodland, Co Meath and Kingscourt.

Proposed route and design options for both projects have been drawn up by EirGrid, following extensive studies over recent months.

The proposed options will be on public display in

- **Cabra Castle Hotel, Kingscourt, Co Cavan**
- **on Wednesday 17th October 2007**
- **from 3pm to 8pm.**

Members of the public are encouraged to come along to view the route and design options and maps, talk to the EirGrid project team and our consultants, and to tell us your views.

For further information visit [www.eirgrid.com](http://www.eirgrid.com)



Tel: 1890 252 690

email: [meathcavanpower@eirgrid.com](mailto:meathcavanpower@eirgrid.com)

email: [cavantyroneinterconnector@eirgrid.com](mailto:cavantyroneinterconnector@eirgrid.com)



# ELECTRICITY POWER LINE FOR THE NORTH EAST INFORMATION DAY

Two major infrastructural projects are currently underway for the Kingscourt area:

- North-South interconnector powerline between Kingscourt and Tyrone
- New powerline for the North East between Woodlands, Co Meath and Kingscourt, Co Cavan with a new sub-station at Kingscourt.

The preferred route for each project will be determined in early 2008, following extensive studies.

EirGrid is repeating its series of meetings to inform people about the project and you are invited to come along to have your queries answered by EirGrid's project team, either on a one-to-one basis or in discussion groups:

**ON: Wednesday, 28th November 2007**

**AT: 3pm - 8pm.**

**IN: Cabra Castle Hotel, Kingscourt, Co Cavan**

## **Open Day**

Experts will be available to discuss the project and specific issues on a one-to-one basis, including:

- Health and Electricity (EMF)
- Why go overhead instead of underground?
- Proposed route corridors
- What next – the planning process
- Landowner compensation
- Any other issues

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In response to requests from the public, focused discussions will be facilitated on the issues of Health and Electricity (EMF) and Overhead v Underground Powerlines.

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**For further information:**

**Visit:** [www.EirGrid.com](http://www.EirGrid.com) **Lo-call:** 1890 25 26 90

**Email:** [MeathCavanPower@eirgrid.com](mailto:MeathCavanPower@eirgrid.com)



# ELECTRICITY POWER LINE FOR THE NORTH EAST INFORMATION DAY

A new electricity power line is currently being planned for the North East, between Woodlands in Co Meath and Kingscourt in Co Cavan. The preferred route will be determined in early 2008, following extensive studies.

EirGrid is repeating its series of meetings to inform people about the project and you are invited to come along to have your queries answered by EirGrid's project team, either on a one-to-one basis or in discussion groups:

**ON: Thursday, 29th November 2007**

**AT: 3pm - 8pm**

**IN: Old Darnley Lodge, Athboy, Co Meath**

## Open Day

Experts will be available to discuss the project and specific issues on a one-to-one basis, including:

- Health and Electricity (EMF)
- Why go overhead instead of underground?
- Proposed route corridors
- What next – the planning process
- Landowner compensation
- Any other issues

## Discussion Groups on EMF and Undergrounding

In response to requests from the public, focused discussions will be facilitated on the issues of Health and Electricity (EMF) and Overhead v Underground Powerlines.

These discussion groups will be held at 4pm, 5.30pm and 7pm.

Should you wish to participate, please register by emailing [MeathCavanPower@eirgrid.com](mailto:MeathCavanPower@eirgrid.com) or lo-call 1890 25 26 90.

**For further information:**

**Visit:** [www.EirGrid.com](http://www.EirGrid.com) **Lo-call:** 1890 25 26 90

**Email:** [MeathCavanPower@eirgrid.com](mailto:MeathCavanPower@eirgrid.com)



# EIRGRID INFORMATION IN RELATION TO TWO PROPOSED OVERHEAD POWER LINES

A number of questions have been raised with us about the proposed 400kV power line projects from Woodland to Kingscourt, and from Cavan to Tyrone. EirGrid is currently undertaking a consultation process on a number of possible routes, with a view to lodging a planning application in 2008.

There may be incorrect information in circulation in relation to these projects and EirGrid wishes to clarify a number of points:

- We wish to emphasise that EirGrid has not already applied for planning permission for any portion of these projects. A preferred route for each project will be chosen in early 2008. Public consultation will continue on these projects until planning applications are made later in 2008 to the independent planning authorities, who will in turn examine all issues.
- It has been stated that other countries in Europe do not use overhead lines or have banned overhead lines. This is not the case. Overhead lines are the main form of electricity transmission in Europe and approximately 97% of all electricity transmission in Europe is overhead lines.
- It has been stated that the voltage at which these lines will operate is unprecedented in Ireland and would be the highest voltage level in Europe. In fact there are 439km of 400kV lines operating in Ireland for over twenty years. Internationally transmission lines at 700kV are in use in a number of countries.
- EirGrid aims to build the power lines a minimum distance of 50 to 60 metres from existing dwellings to the centre of the line and not 25 m as has been claimed. In many cases the distance will be much greater than 50 to 60 metres.
- No time restrictions exist for employees working in the vicinity of overhead lines. The EirGrid network is designed and operated in compliance with international and EU guidelines for EMF exposure.
- No plans for any EU Directive banning overhead line construction have been announced or proposed by the European Commission, to our knowledge.

The overhead power line projects will bring economic benefits to counties Meath, Monaghan and Cavan. The lines involve an investment of over €200 million and will facilitate more competitive and reliable power, servicing all customers – household, farming, commercial and industrial. The proposed new lines will play a major role in keeping the north east region on a level playing field in its ability to attract and retain high tech industries. EirGrid would encourage people who have questions to contact us. You can do so in a number of ways:

**Website:** [www.eirgrid.com](http://www.eirgrid.com).

**Email:** [meathcavanpower@eirgrid.com](mailto:meathcavanpower@eirgrid.com) or  
[cavantyroneinterconnector@eirgrid.com](mailto:cavantyroneinterconnector@eirgrid.com)

**Phone:** Lo call 1890.25.26.90



# EIRGRID INFORMATION ON HEALTH AND PROPOSED POWERLINES IN NORTH EAST

## What do the experts say about overhead power lines and health?

Hundreds of international studies have been conducted on health and power lines since the 1970's. It is important to focus on the authoritative scientific sources. The 2007 view of World Health Organisation (WHO) is that "that there are no substantive health issues related to ELF electric fields at levels generally encountered by members of the public".

## What are the most authoritative reports on electromagnetic fields and health?

- The World Health Organisation (WHO) EMF Task Group report published in June 2007 is the most authoritative report. For full details you can visit the WHO website on <http://www.who.int/mediacentre/factsheets/fs322/en/index.html>
- Our own Department of Communications, Marine and Natural Resources (DCMNR) published a report in March 2007. The conclusions of the international expert authors were consistent with those of similar international reviews. This document is available on their website at <http://www.dcmnr.gov.ie>

## What regulations do EirGrid comply with?

- International guidelines for EMF exposure were set by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) who advise the WHO.
- In its 2007 Report, the WHO confirmed these guidelines are sufficient to protect public health.
- The Irish network is in full compliance with these most up-to-date international guidelines.
- Neither EirGrid, nor any other power company in Ireland, has any time restrictions for employees working in the vicinity of overhead lines.

## Where can I find out more about EMF?

Visit our website to download our brochure **Information on Electric and Magnetic Fields**. Or you can get in touch with us and we will post you out a copy.

**Website:** [www.eirgrid.com](http://www.eirgrid.com).

**Email:** [meathcavanpower@eirgrid.com](mailto:meathcavanpower@eirgrid.com) or [cavantyroneinterconnector@eirgrid.com](mailto:cavantyroneinterconnector@eirgrid.com)

**Phone:** Lo call 1890.25.26.90



# EIRGRID UPDATE

As previously communicated, EirGrid intends to announce the preferred route for the Cavan Tyrone/Meath Cavan proposed power lines early in 2008.

EirGrid has been engaged in an extensive consultation process with the people of Meath, Cavan and Monaghan on three proposed routes since October 2007. Over the last 15 weeks, EirGrid has been in communication with more than 5,000 people in advance of making a decision on the preferred route for these vital electricity power lines. The public consultation has taken the form of open days, face to face meetings, as well as thousands of communications via the telephone information line, email and in writing.

EirGrid invites anyone who has not yet submitted information as part of the public consultation process on the proposed power lines for Cavan/Tyrone and Meath/Cavan and who wishes to do so, to email or post their views to the following addresses by the 11th of February, 2008: [MeathCavanPower@eirgrid.com](mailto:MeathCavanPower@eirgrid.com) or [CavanTyroneInterconnector@eirgrid.com](mailto:CavanTyroneInterconnector@eirgrid.com) or EirGrid Plc, 27 Lower Fitzwilliam St, Dublin 2.

EirGrid and its consultants will process all the information received in order to determine a preferred route. The consultation process will continue with landowners, residents and other stakeholders in relation to the preferred route before a planning application is made to An Bord Pleanala, later in 2008, who will examine all issues.

An Environmental Impact Statement (EIS) will be prepared to deal with all relevant issues, including health concerns and undergrounding versus overhead lines. The EIS will be submitted with the planning application and will be available to the public. Members of the public have seven weeks to make submissions to the planning authority from the date of application to An Bord Pleanala.

EirGrid emphasises the critical need for these new transmission lines for the delivery of high quality power in sufficient quantities for the needs of all customers in the region. EirGrid strongly believes that its present proposal for the upgrading of the transmission system is the best one.

**Website:** [www.eirgrid.com](http://www.eirgrid.com)

**Email:** [meathcavanpower@eirgrid.com](mailto:meathcavanpower@eirgrid.com) or [cavantyroneinterconnector@eirgrid.com](mailto:cavantyroneinterconnector@eirgrid.com)

**Post:** EirGrid Plc, 27 Lower Fitzwilliam St, Dublin 2.



## **APPENDIX D**

### **[PRESS RELEASES]**

## **NEW ELECTRICITY LINES FOR NORTH EAST WILL INCREASE CAPACITY AND ENABLE MORE DEVELOPMENT AND COMMERCE**

**Monday, 1<sup>st</sup> October 2007:**

EirGrid, the organisation responsible for putting in place major electricity transmission infrastructure to support all regions and the economy nationally, has launched two projects in the North East.

The two projects will;

- Ensure a future secure supply of electricity throughout the North East.
- Facilitate cross-border sharing of electricity
- Help promote better competition
- Facilitate use of renewable energy
- Upgrade existing electricity supplies.

The two projects are;

- The first project is a new 400kV Interconnector between Cavan and Tyrone that will more than double the current power transfer capacity between the North and the South. The new interconnector will span approximately 45km in the Republic of Ireland, will cost in the region of €180 million and will be routed from a proposed new substation near Kingscourt in Co Cavan, through Co Monaghan and onwards to Co Tyrone. This project is being undertaken in co-operation with Northern Ireland Electricity (NIE).
- The second project is the Woodland (Co Meath) to Kingscourt (Co Cavan) 400kV Power Line. It is approximately 58km long and will cost in the region of €100 million. This power line will reinforce the power system in the North East, facilitating competition and secure supplies of power for all customers.

A number of route corridor options for both projects are currently being investigated and a shortlist of proposed route corridors will be presented to the Elected Members of Counties Cavan, Meath and Monaghan in early October.

Maps and details about each of the proposed route corridor options for both projects will be presented at Public Open Days in early October in Trim, Castleblaney and Kingscourt. All stakeholders will have an opportunity to make their views known at that stage, before route option studies are completed and a final route is chosen.

The Public Open Days will be as follows

Thursday 11<sup>th</sup> October, Castle Arch Hotel, Trim Co Meath

Tuesday, 16<sup>th</sup> October, Glencarn Hotel, Castleblaney, Co Monaghan

Wednesday, 17<sup>th</sup> October, Cabra Castle Hotel, Kingscourt, Co Cavan

“These proposed new lines are vital in order to facilitate security of supply, facilitate competition benefiting existing customers, and also to supply the needs of the new householder and commercial customers who have connected in recent years”, says Aidan Corcoran, Project Engineer, EirGrid. “Both projects will be subject to the full planning processes. EirGrid will provide ample opportunities for the public to make their views known, so that the best route options are chosen for these projects.”

“The extensive design and route option studies will continue until 2008, when a preferred route will be chosen. The studies will take into account input from a wide range of stakeholders, as well as environmental and economical impacts,” continues Aidan Corcoran.

The network strengthening in Cavan, Monaghan, and Meath will support growth in the region and ensure continuing reliability of supply as well as giving existing industries a major boost

when competing for business and inward development in the area. It will also complement the proposed additional Interconnector between Kingscourt and Tyrone.

“The Irish Economy has grown strongly during the past decade leading to unprecedented growth in electricity demand countrywide. The average annual increase in peak demand nationally has been around 4% and this growth has led to a need for a major reinforcement of the electricity infrastructure in the North East,” says Aidan Corcoran.

It is European Union policy that links between electricity systems are a key way of ensuring secure and competitively priced electricity markets into the future. A Single Electricity Market for Ireland is due to come into effect later this year. The increased capacity provided by this Interconnector will help promote competition and better sharing of generation resources, for the benefit of all customers. It will lead to fuel savings, result in fewer emissions and facilitate integration of wind generated energy. In addition to the benefits on an all island basis, the strengthening of the high voltage network in Counties Monaghan, Cavan and Meath will add to the availability of bulk high quality power in the North East.

For more information and public consultation updates, visit [www.EirGrid.com](http://www.EirGrid.com)  
Map available - contact Mary Murphy Associates, 01-284 6338

ENDS.

FOR MEDIA QUERIES:  
Mary Murphy, 087-233 6415

## **MEATH – CAVAN & CAVAN TYRONE ROUTE CORRIDOR OPTIONS**

**17<sup>TH</sup> October Press Release - Maps attached**

### **Route Option 1**

Route Option 1 runs to the western part of the study area, staying to the west of the towns of Trim, Athboy and Kells and approximately 5km north of the town of Ballivor and approximately 1km east of the town of Mullagh.

### **Route Option 2**

Route Option 2 runs between the central and western section of the study area, staying to the east of the town of Trim and Athboy, west of the town of Kells and then runs parallel to Route Option 1, running approximately 2.5km to the east of the town of Mullagh

### **Route Option 3**

Route Option 3 follows Route Option 2 initially before running in a due north direction, running to the west of the town of Navan and to the east of the town of Kells. Approximately 6km north of the N3, this route option splits into two options 3A and 3B, before joining together west of Whitewood Lough.

## **NORTH EAST TO BENEFIT FROM MAJOR ELECTRICITY INVESTMENT PLANS**

**11<sup>th</sup> November 2007**

“The overhead power line projects which are currently the subject of a major public consultation process, will bring economic benefits to counties Meath, Monaghan and Cavan”, the independent transmission system operator EirGrid said today. “All route corridor options being consulted on are being actively considered and no decision will be made on the final preferred route until the public consultation process has terminated and a planning application has been made”.

The lines involve an investment of over €200 million and will facilitate more competitive and reliable power, helping keep the north east region on a level playing field in its ability to attract and retain high tech industries, EirGrid pointed out.

### **PUBLIC CONSULTATION**

EirGrid has asked people who have comments on the proposals to take part in the four-month consultation process which commenced last month – and which is additional to the statutory planning process which commences in 2008. In excess of 500 people have attended open days in counties Monaghan, Cavan and Meath and many more have contacted Eirgrid on Lo-call: 1890 25 26 90, visited the website [www.EirGrid.com](http://www.EirGrid.com) or emailed Eirgrid at: [MeathCavanPower@eirgrid.com](mailto:MeathCavanPower@eirgrid.com) or [CavanTyroneInterconnector@eirgrid.com](mailto:CavanTyroneInterconnector@eirgrid.com)

A repeat of the Open Days will take place again this month - (27 November, 3–8pm, Four Seasons Hotel, Monaghan Town; 28<sup>th</sup> November, 3-8pm, Cabra Castle Hotel, Kingscourt, Co. Cavan; 29 November, 3-8pm, Old Darnley Lodge, Athboy, Co. Meath).

In response to requests from the public, focused discussions will be facilitated at these open days on 27, 28 and 29 November on the issues of EMF and also discussions on factors relating to overhead and underground power transmission during the Open Days. These discussion groups will be held at 4pm, 5.30pm and 7pm. Anyone wishing to participate can register by emailing [MeathCavanPower@eirgrid.com](mailto:MeathCavanPower@eirgrid.com) or [CavanTyroneInterconnector@eirgrid.com](mailto:CavanTyroneInterconnector@eirgrid.com) or lo-call 1890 25 26 90.

Following completion of the consultation process, a planning application will be submitted early in the new year. After the planning application has been lodged, the independent planning process will also present a seven week opportunity for people to make submissions, comments or objections.

### **‘BROADBAND’ POWER**

The new power lines will bring the equivalent of ‘broadband power’ to the region – that is, the power lines will help ensure the delivery of high quality and highly reliable services. These proposed new lines are vital in order to facilitate competition as part of the All Island Market, and also to ultimately supply the needs of new householders and commercial customers who have connected in recent years. The new lines are needed because transmission lines in the region will reach full capacity in the near future.

The key to the benefits of the new networks is the use of the standard international technology for delivery of high voltage power – overhead lines.

The lines will comply with all international standards and are of the same type as the two lines already in place between Moneypoint in Co Clare and Co Meath and, between Moneypoint and Co Kildare, which total 440km.

### **INVESTMENT WILL HELP ATTRACT AND RETAIN INDUSTRY**

Undergrounding all or part of a Transmission Network presents problems for the secure and reliable operation of that network. The location and repair of faults on underground cables can take a number of weeks, depending on the type of fault and its location. For such an

integral part of the transmission system, such a compromise to the security of supply would be unacceptable.

Industries are attracted to a region for many reasons, one of them being a dependable supply of electricity. New industries locating in Ireland discuss with EirGrid the terms, conditions, security of supply and the quality of the power being delivered. A Transmission System depending on circuits of underground cable would not provide the continuity or quality of supply necessary to attract the high quality type of industry being sought by the local development agencies such as the IDA. As an example of this, EirGrid also pointed out that the highly reliable and economic power lines which have helped attract major IT manufacturing to North Dublin and Co Kildare are linked by overhead high voltage lines. 97 per cent of onshore high voltage lines in Europe are overhead lines and this is also true of other developed nations such as the US.

### **INTERNATIONAL BODIES DO NOT FIND ADVERSE HEALTH EFFECT**

EirGrid is satisfied from the totality of studies and the views of international authoritative agencies that the balance of evidence is that electric and magnetic fields do not have any adverse effect on health. (Information available at [www.eirgrid.com](http://www.eirgrid.com))

Following extensive worldwide research, involving expenditure of over €440m, no conclusive evidence has been found that extremely low frequency (ELF) EMF's from power lines are harmful to public health. Research has been reviewed by international bodies including the WHO. It was also reviewed earlier this year by the Department for Communications, Energy and Natural Resources.

For further information visit [www.eirgrid.com](http://www.eirgrid.com) or [MeathCavanPower@eirgrid.com](mailto:MeathCavanPower@eirgrid.com) or [CavanTyroneInterconnector@eirgrid.com](mailto:CavanTyroneInterconnector@eirgrid.com) or lo-call 1890 25 26 90.

### **Note to Editors:**

The two projects are;

- A new 400kV Interconnector between Cavan and Tyrone that will more than double the current power transfer capacity between the North and the South. The new interconnector will span approximately 45km and 35km in the North in the Republic of Ireland, will cost in the region of €180 million and will be routed from a proposed new substation near Kingscourt in Co Cavan, through Co Monaghan and onwards to Co Tyrone. This project is being undertaken in co-operation with Northern Ireland Electricity (NIE).
- The Woodland (Co Meath) to Kingscourt (Co Cavan) 400kV Power Line. It is approximately 58km long and will cost in the region of €100 million. This power line will reinforce the power system in the North East, facilitating competition and secure supplies of power for all customers.

A number of route corridor options for both projects are currently being investigated and a shortlist of proposed route corridors were presented to the Elected Members of the local authorities in Counties Cavan, Meath and Monaghan in early October and at three public open days. In routing overhead lines EirGrid aim to keep as far away from communities and houses. In any case a minimum clearance of 50 metres is our routing aim.

Public Open Days were held in the Castle Arch Hotel, Trim, the Glencarn Hotel, Castleblaney, and the Cabra Castle Hotel, Kingscourt on the 11<sup>th</sup> 16<sup>th</sup> and 17<sup>th</sup> October respectively and over 500 people attended these open days: An enormous amount of feedback was received from these open days and this will feed into the process of selecting the preferred route corridor.

**Further open days** are being planned towards the end of this month. Dates and venues are as follows:

27 November 2007  
3:00 – 8:00 PM  
Four Seasons Hotel, Monaghan, Co. Monaghan

28 November 2007  
3:00 – 8:00 PM  
Cabra Castle Hotel, Kingscourt, Co. Cavan

29 November 2007  
3:00 – 8:00 PM  
Old Darnley Lodge, Athboy, Co. Meath

ENDS.

Media queries: Mary Murphy, 087-233 6415 / 01-284 6338

## **EIRGRID ANNOUNCES EXTENSION OF PUBLIC INFORMATION AND CONSULTATION PROCESS**

### **Friday 23<sup>rd</sup> November 2007:**

- After Open Days in coming week, further opportunities will be available to meet project team and experts
- People attending Open Days this week are asked to co-operate on organisation for health and safety and so there is room for everyone.

EirGrid, which has announced proposals for two power line projects in the North East, has today said that the public information and consultation process on the projects will continue until 2008. A preferred route will be announced in January as part of the initial phase of consultation and detailed consultation will continue into 2008. No planning application will be lodged until next year.

EirGrid has asked people attending the Open Days on the proposed two projects to be aware of the fact that, while the venues have significant space, as is normal for any premises, they can only hold a limited number of people at one time. This is to ensure health and safety for all attending and also to enable people attending to have time to ask questions.

However, it is emphasised that further opportunities for groups and individuals are being organised over the coming weeks.

EirGrid is aware of the major interest in these projects and will be providing further opportunities in all of the three counties for people to seek information and to inform us of their views.

The new lines are needed because transmission lines in the region will reach full capacity in the near future. The lines will facilitate more competitive and reliable power, helping keep the north east region on a level playing field in its ability to attract and retain high tech industries. The lines will comply with all international standards and are of the a similar type as the two lines already in place between Moneypoint in Co Clare and Co Meath and, between Moneypoint and Co Kildare, which total 440km in length.

The open days are being held in:

- The Four Seasons Hotel, Monaghan Town; 27 November, 3–8pm,
- Cabra Castle Hotel, Kingscourt, Co. Cavan; 28<sup>th</sup> November, 3-8pm,
- Old Darnley Lodge, Athboy, Co. Meath. 29 November, 3-8pm.

-2-

The two projects are :

- A new 400kV Interconnector between Cavan and Tyrone that will more than double the current power transfer capacity between the North and the South.
- A Woodland (Co Meath) to Kingscourt (Co Cavan) 400kV Power Line. This power line will reinforce the power system in the North East, facilitating competition and secure supplies of power for all customers.

People can contact the project on Lo-call: 1890 25 26 90, visit the website [www.EirGrid.com](http://www.EirGrid.com), or they can email Eirgrid at: [MeathCavanPower@eirgrid.com](mailto:MeathCavanPower@eirgrid.com) or [CavanTyroneInterconnector@eirgrid.com](mailto:CavanTyroneInterconnector@eirgrid.com)



### **UNDERGROUND VERSUS OVERGROUND LINES**

These lines have to go over ground. Nowhere in the world are lines as long as these two lines (80km and 58km) put underground. The primary reason is because it takes too long to locate and repair faults on underground cables – weeks versus hours for over ground cables. Security of electricity supply over such a huge area of the North East means over ground lines are essential. Throughout Europe, 97% of lines like these are over ground. Only short stretches of powerlines in cities and built up areas, where there is literally no room for pylons, are laid underground.

Industries are attracted to a region for many reasons, one of them being a dependable supply of electricity. New industries locating in Ireland discuss with EirGrid the terms, conditions, security of supply and the quality of the power being delivered.

### **HEALTH CONCERNS**

People have concerns about health and Eirgrid is anxious to meet with people and ease those concerns in a straightforward manner, as well as dispel some of the myths associated with electricity transmission.

The fact is that extensive worldwide research, involving expenditure of over €440m, has found NO conclusive evidence that extremely low frequency (ELF) EMF's from power lines are harmful to public health. This research has been reviewed by international bodies including the WHO. It was also reviewed earlier this year by the Department for Communications, Energy and Natural Resources.

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In March 2007, the Department of Communications, Marine and Natural Resources (DCMNR) published a report entitled Health Effects of Electromagnetic Fields, compiled by an international expert group. This document is available on their website, [www.dcmnr.gov.ie](http://www.dcmnr.gov.ie). The conclusions were consistent with those of similar reviews conducted by authoritative national and international agencies. In relation to ELF EMF, the report clearly states that, "No adverse health effects have been established below the limits suggested by international guidelines."

EirGrid is satisfied from the totality of studies and the views of international authoritative agencies that the balance of evidence is that electric and magnetic fields do not have any adverse effect on health. (Information available at [www.eirgrid.com](http://www.eirgrid.com)).

The World Health Organisation (WHO) issued guidelines in 1998 that were adopted by EU in 1999. We comply with the guidelines. These guidelines are continually monitored and reviewed and they have not had to be changed. A study carried out by the World Health Organisation (WHO) EMF Task Group and concluded this year says that there are no substantive health issues related to ELF EMFs at levels generally encountered by members of the public.

For further information visit [www.eirgrid.com](http://www.eirgrid.com) or [MeathCavanPower@eirgrid.com](mailto:MeathCavanPower@eirgrid.com) or [CavanTyronelnterconnector@eirgrid.com](mailto:CavanTyronelnterconnector@eirgrid.com) or lo-call 1890 25 26 90.

Mary Murphy 087 233 6415 01 284 6338

## EIRGRID ANNOUNCES EXTENSION OF PUBLIC INFORMATION AND CONSULTATION PROCESS

### Monday 26th November 2007:

- After Open Days in coming week, further opportunities will be available to meet project team and experts
- People attending Open Days this week are asked to co-operate on organisation for health and safety and so there is room for everyone.

EirGrid, which has announced proposals for two power line projects in the North East, has today said that the public information and consultation process on the projects will continue until 2008. A preferred route will be announced in January as part of the initial phase of consultation and detailed consultation will continue into 2008. No planning application will be lodged until next year.

EirGrid has asked people attending the Open Days on the proposed two projects to be aware of the fact that, while the venues have significant space, as is normal for any premises, they can only hold a limited number of people at one time. This is to ensure health and safety for all attending and also to enable people attending to have time to ask questions.

However, it is emphasised that further opportunities for groups and individuals are being organised over the coming weeks.

EirGrid is aware of the major interest in these projects and will be providing further opportunities in all of the three counties for people to seek information and to inform us of their views.

The new lines are needed because transmission lines in the region will reach full capacity in the near future. The lines will facilitate more competitive and reliable power, helping keep the north east region on a level playing field in its ability to attract and retain high tech industries. The lines will comply with all international standards and are of the a similar type as the two lines already in place between Moneypoint in Co Clare and Co Meath and, between Moneypoint and Co Kildare, which total 440km in length.

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-2-

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People have concerns about health and Eirgrid is anxious to meet with people and ease those concerns in a straightforward manner, as well as dispel some of the myths associated with electricity transmission.

The fact is that extensive worldwide research, involving expenditure of over €440m, has found NO conclusive evidence that extremely low frequency (ELF) EMF's from power lines are harmful to public health. This research has been reviewed by international bodies including the WHO. It was also reviewed earlier this year by the Department for Communications, Energy and Natural Resources.

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EirGrid is satisfied from the totality of studies and the views of international authoritative agencies that the balance of evidence is that electric and magnetic fields do not have any adverse effect on health. (Information available at [www.eirgrid.com](http://www.eirgrid.com)).

The World Health Organisation (WHO) issued guidelines in 1998 that were adopted by EU in 1999. We comply with the guidelines. These guidelines are continually monitored and reviewed and they have not had to be changed. A study carried out by the World Health Organisation (WHO) EMF Task Group and concluded this year says that there are no substantive health issues related to ELF EMFs at levels generally encountered by members of the public.

For further information visit [www.eirgrid.com](http://www.eirgrid.com) or [MeathCavanPower@eirgrid.com](mailto:MeathCavanPower@eirgrid.com) or [CavanTyronelnterconnector@eirgrid.com](mailto:CavanTyronelnterconnector@eirgrid.com) or lo-call 1890 25 26 90.

Mary Murphy 087 233 6415 / 01 284 6338

**EIRGRID'S OPEN DAY IN ATHBOY PLANNED FOR TOMORROW, THURSDAY HAS  
BEEN CANCELLED BY THE HOTEL**

**28<sup>th</sup> November, 2007**

The Old Darnley Lodge hotel in Athboy has cancelled tomorrow Thursday's EirGrid Open Day. EirGrid would like to apologise for the inconvenience and is extremely disappointed that the hotel decided to cancel the event especially in the light of the recent successful Open Day in the Four Seasons Hotel in Monaghan.

'We would like to emphasize there will be further opportunities for people in Meath to take part in consultation with EirGrid and that this consultation is an ongoing process' says Aidan Corcoran, Project Engineer, EirGrid.

In the past few weeks, EirGrid has met with or been in contact with well over a thousand people in relation to the proposed power lines in the North East region. People wishing to get in touch can contact EirGrid through their email addresses MeathCavanPower@eirgrid.com or [CavanTyronelnterconnector@eirgrid.com](mailto:CavanTyronelnterconnector@eirgrid.com)

ENDS

For further information please call Mary Murphy 01 2846338/ 087 2336415

**EIRGRID THANKS THOSE WHO ATTENDED AT OPEN DAYS AND CONFIRMS THEY WILL CONTINUE TO CONSULT ON ROUTE CORRIDOR OPTIONS FOR PROPOSED NORTH EAST POWERLINES**

**30<sup>th</sup> November 2007:**

More than 250 people attended at the EirGrid public consultation day on the two proposed powerlines at the Four Seasons Hotel in Monaghan on the 27<sup>th</sup> November to ask questions and give feedback in relation to the need for and the benefits of the proposals from members of the Eirgrid Project team. A panel of experts, including the two firms of consultants working on the powerline projects, an independent scientist from the US who spoke about health concerns and two specialists from the UK on overground and underground powerlines talked with people individually and in small groups so everyone's opinion could be heard.

"We were delighted so many people came to meet us and we listened very carefully to their concerns", said Aidan Corcoran, Project Manager, Eirgrid. "We were able to answer a lot of questions on the day and give people maps and written information to take away with them, as well as introducing them to the independent experts who talked with them about overground versus underground powerlines and electromagnetic fields (EMF) and any health concerns."

Eirgrid's website [www.eirgrid.com](http://www.eirgrid.com) has been visited by large numbers of people and the company has received hundreds of phone calls on 1890 25 26 90 as well as emails to [CavanTyronelInterconnector@eirgrid.com](mailto:CavanTyronelInterconnector@eirgrid.com). All correspondence is being responded to and Eirgrid will continue to consult with listen to people while work continues on picking the preferred route corridor for the powerlines. No decision will be made on the routes until the New Year and Eirgrid will apply for planning permission in 2008.

Eirgrid expressed regret to people from Co Cavan and Co Meath who were unable to attend the planned consultation evenings in Kingscourt and Athboy, due to late cancellations by hotels in both counties. EirGrid is giving careful consideration to how to hold further opportunities in a safe and accessible way for people in those counties, after the cancellations.

The experts on powerlines who attended the open days confirmed that 97% of powerlines in Europe are situated overhead. Nowhere in the world is there an underground line of the length of the proposed powerlines ( 80km and 58km). These are strategic lines, providing electricity to a wide area. Faults, when they occur in overhead lines, can be identified and fixed in hours - essential to meet the need of modern industry, domestic, commercial and farming customers. Faults on underground lines can take far longer to find and can take weeks to repair. Lengthy power outages which could result would not be sustainable for any customers – domestic, commercial, farming or industrial – in the region.

In relation to Electric and Magnetic Fields (EMF), the most recent Task Group report of the World Health Organisation (WHO) was published in June 2007. The Task Group's main objective was to review the scientific literature on the biological effects of exposure to Electric and Magnetic Fields in order to assess any health risks from exposure to these fields and to use this health risk assessment to make recommendations to national authorities on health protection programs. The Task Group concluded that there are no substantive health issues at EMF exposure levels generally encountered by members of the public.

For more information, please contact [www.eirgrid.com](http://www.eirgrid.com) or [MeathCavanPower@eirgrid.com](mailto:MeathCavanPower@eirgrid.com) or [CavanTyronelInterconnector@eirgrid.com](mailto:CavanTyronelInterconnector@eirgrid.com) or lo-call 1890 25 26 90.  
ENDS

For further information: Mary Murphy 087 233 6415 01 284 6338



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# Letters to the Editor

## Concerns over new power lines

Madam, - I would be grateful for the opportunity to respond to recent letters in relation to EirGrid's proposal for essential new 400 kilovolt (kV) electricity lines in Meath, Cavan and Monaghan, currently the subject of public consultation.

The proposed power lines are vital to ensure reliable and economic electricity supplies to homes, farms, small businesses and industries, as well as facilitating competition in the electricity market. Without this upgrade, the region would not in future be assured of the high quality bulk electricity supply so necessary for all aspects of modern life and business.

The 400kV electricity lines proposed are the same as the existing 400kV lines that run from Moneypoint in Co Clare to Kildare and Meath. Those have been in operation since the 1980s. They are similar to lines which are standard

throughout Europe and internationally. Some 97 per cent of high-voltage lines in Europe are carried overhead and no 400kV power line of the length and type needed in the north-east has ever been placed underground anywhere in the world.

All Irish power lines comply with the standard guidelines of the EU and the International Commission of Non-Ionising Radiation Protection (ICNIRP) for electric and magnetic field (EMF) exposure levels. The World Health Organisation, in its most recent EMF report (June 2007), having reviewed the relevant research, confirmed that compliance with ICNIRP standards was sufficient to protect public health. In fact the levels of EMF from power lines in Ireland are generally much lower than ICNIRP levels, and are lower than levels from appliances commonly used in homes throughout

the country.

In relation to some of the specific points raised, I can assure your readers that neither EirGrid nor any other power company in Ireland has any 15-minute limit on working with power lines. In fact there is no time limit in place for employees of electricity companies in Ireland for such work.

More than 2,500 people have attended open days or received information via telephone, email or letter over the past two months. EirGrid is continuing to consult all stakeholders on route options for these two new lines. Anyone can phone us on 1890 25 26 90. We strongly believe that our present proposal for upgrading the transmission system is the best one, both for this region and for all electricity customers in the State. Under the planning system, the independent planning authorities will make the decision on these two lines and people can submit any observations or objections to the planning authorities when a planning application is made next year. - Yours, etc,

**MICHAEL KELLY,**  
Communications Manager,  
EirGrid,  
Dublin 2.

## MEATH CHRONICLE ARTICLE

12<sup>th</sup> December

### The Great Pylons Debate

EirGrid says lines must go underground

#### ***The case for***

PEOPLE living and working in counties Meath, Monaghan and Cavan urgently need the two new overhead power line projects being proposed by EirGrid. Existing supplies in the area are likely not to be able to meet future demands for electricity as early as 2012/2013.

The new power lines are needed to provide a future reliable and secure supply of electricity. The new power lines will increase competition and help reduce the cost of electricity to customers, and will help keep the north-east region on a level playing field in its ability to attract and retain high-tech industries. The new power lines also will facilitate the use of renewable energy in future.

This is the reason EirGrid has produced what it believes is the best possible proposal and why it has been consulting on route options since early October. More than 2,500 people have received information either via telephone, e-mail, letter, or at open days over the past two months, and no application will be made for planning permission until at least next spring. EirGrid's policy of putting power lines overhead is in line with what happens all over Europe, where overhead lines are the norm. Practically all (97 per cent) of all European power lines are overhead. Nowhere in the world are there lines underground as long as the two proposed lines (80km and 58km approx).

It's better from a technical point of view to have the lines overhead. Based on international experience, an underground electricity cable would not provide the reliable, secure or economic service needed in the region. This is because long delays on repairs that can occur with underground cable could not be tolerated as it could result in power cuts in the region. In contrast, the standard international method for power lines, which is overhead construction, results in fault-finding and repair generally measured in hours. These lines have to go over-ground. The primary reason is because it takes too long to locate and repair faults on underground cables - weeks versus hours for over-ground cables. Security of electricity supply over such a huge area of the north-east means over-ground lines are essential. Only short stretches of power lines in cities and built-up areas, where there is literally no room for pylons, are laid underground. Industries are attracted to a region for many reasons, one of them being a dependable supply of electricity. New industries locating in Ireland discuss with EirGrid the terms, conditions, security of supply and the quality of the power being delivered. People have concerns about health and EirGrid is anxious to meet with people and ease those concerns in a straightforward manner, as well as dispel some of the myths associated with electricity transmission.

The fact is that extensive worldwide research, involving expenditure of over €440m, has found no conclusive evidence that extremely low frequency (ELF) EMFs from power lines are harmful to public health. This research has been reviewed by international bodies including the WHO. It was also reviewed earlier this year by the Department for Communications, Energy and Natural Resources. In March 2007, the Department of Communications, Marine and Natural Resources (DCMNR) published a report entitled 'Health Effects of Electromagnetic Fields', compiled by an international expert group. This document is available on their website, [www.dcmnr.gov.ie](http://www.dcmnr.gov.ie). The conclusions were consistent with those of similar reviews conducted by authoritative national and international agencies. In relation to ELF EMF, the report clearly states that "no adverse health effects have been established below the limits suggested by international guidelines". EirGrid is satisfied from the totality of studies and the views of international authoritative agencies that the balance of evidence is that electric and magnetic fields do not have any adverse effect on health.

EirGrid is setting up meetings with groups and individuals who are concerned about possible adverse health impacts from overhead power lines, so they can reassure them. The company is satisfied that there is no reason why the two proposed lines should have any adverse effect on people's health or should be laid underground. People often quote individual studies when they voice their concerns about health. EirGrid advises anyone who is concerned to look at the totality of the research that is available and not just at any one study. The World Health Organisation (WHO) has looked at all the research and its most recent report, published in June 2007, states clearly that "the balance of evidence is that extremely low frequency electric and magnetic fields, at the levels to which members of the public are exposed from power lines, do not have adverse effect on health".

EirGrid is encouraging everyone with concerns or queries in relation to the proposed power lines to make contact through the advertised channels so that we can work together on getting these very important and beneficial projects underway.

For further information, visit [www.eirgrid.com](http://www.eirgrid.com) or e-mail [meathcavanpower@eirgrid.com](mailto:meathcavanpower@eirgrid.com) or lo-call 1890 25 26 90.

Leukaemia may result from EMF exposure

### ***The case against***

A SIGNIFICANT body of research over the years has been performed in relation to the health effects of electric and magnetic fields associated with EHV lines. Current scientific data now confirms that exposure to electromagnetic fields above 0.4 microteslas increases the risk of leukaemia, particularly for children. Additionally, increasing evidence shows that it is associated with an increased risk of miscarriage, brain tumours and motor neurone disease. The World Health Organisation (WHO) is currently undertaking a large programme of research on the health effects of EMF and, in 2003, released a public advisory saying that there was now sufficient evidence for regulatory bodies to take a precautionary approach to actively prevent or reduce exposure.

In 2006, an influential paper by UK scientists, Draper and colleagues, was published in the British Medical Journal confirming that EMF was associated with childhood leukaemia, and more importantly, that the effects of EMFs were seen over a greater distance than previously reported. This has led to the suggestion that the easement for any pylon corridor be at least 600m (300m each side).

In the UK, the government formed SAGE, which is a stakeholder advisory group on EMFs. This group comprises industry, public and scientific advisors. In May 2007, they released their interim report which confirms that there is sufficient evidence to suggest a relationship between low levels of EMF and health problems and that there must be government action to reduce public exposure.

They note that their recommendations on minimum safe distances and exposure levels (0.4microteslas) will have a significant impact on property values. The SAGE report notes that the minimum distance from 400kV power lines is 60m to get an exposure of 0.4 microteslas. They note that, consistent with WHO findings, a public exposure of 0.1 microteslas is desirable and minimum distances are then over 100m. They warn that the highest potential currents on existing cable technology means that the minimum safe distance (0.4 microtesla exposure) from 274 to 400kV lines would be up around 280m each side (560 metres total). In June 2007, the European Commission published an opinion report of the scientific committee on Emerging and Newly Identified Health Risks (SCENIHR) on the possible health risks of electromagnetic fields. The opinion by SCENIHR focuses primarily on whether health effects occur at low exposure levels, and in particular, in relation to long-term exposure. The opinion concludes that, for extremely low frequency (ELF) fields (ie, nearby power lines) that ELF magnetic fields are possibly carcinogenic, mostly based on occurrence of childhood leukaemia. In view of the gaps in knowledge identified in the opinion, the SCENIHR proposes further and appropriate research to be conducted.



There is a body of evidence which points to a real threat to health caused by an overhead line of this scale. These findings heighten concerns at public level. So also does the apparent desire by Eirgrid to take the minimum precautions necessary. For example, the statement by Eirgrid of a minimum proximity of 25 metres from the proposed overhead lines to existing houses is very concerning. In the UK, the minimum level is 60 metres. In other European countries, such as Denmark, this increases to 160 metres.

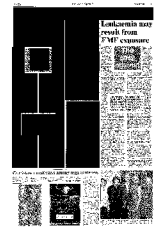
The erection of extremely large pylon towers and overhead lines has a major and immediate negative impact on land and property valuations. It also significantly affects the ability to obtain planning permission for new houses/developments within a large distance from the unsightly pylons. There is no compensation that will be adequate enough to cover property and land intrusion and devaluation to land owners who will have the pylons on their land, or for adjacent landowners who do not have the pylons on their land, but whose land and property values will be significantly impacted.

The option of under-grounding transmission lines is consistent with the objectives of not only protecting our environment, but also the cultural, social and economic aspects of our communities. While the visual impact will be greatest along the line corridor, it is no more acceptable to those within more distant sight of the giant pylons or to tourists, local or visiting, on roads. These pylon towers will detract from beautiful landscapes which have high amenity and economic value for communities.

According to Eirgrid, a review of the development plans was taken in order to assess the number of scenic views, scenic routes, and vulnerable landscapes in the area. However, upon closer inspection of Meath County Development Plans 2007-2013 and of Eirgrid's proposed route corridors, there are a number of cases where there is a direct contradiction to many policies and recommendations in the county development plan.

The code of practice between ESB National Grid and the Minister of the Environment, Heritage and Local Government in relation to archaeological heritage highlights that ESB National Grid is fully committed to ensuring that these transmission developments are carried out in an environmentally sensitive manner which will protect our archaeological heritage and national monuments.

ESB National Grid state that they are fully committed to operating within the guidelines outlined within the code of practice. The development of such a network has potential archaeological implications, which must be addressed given that archaeological heritage is a non-renewable resource.



**The Great Pylons Debate:** Few issues in recent years in Meath have stirred as much controversy and seen such large attendances at protest meetings across large swathes of the county than the proposal by EirGrid, the electricity transmission system operator, to construct 400kV over-ground cables from the Woodland sub-station near Batterstown to Kingscourt. EirGrid says the project is crucial to secure future electricity supplies in the region while opponents are deeply fearful of the health implications on communities living in close proximity to the pylons. Here, EirGrid and Meath Pylon Pressure air their opposing views

# EirGrid says lines must go underground

The  
case  
for

**PEOPLE** living and working in counties Meath, Monaghan and Cavan urgently need the two new overhead power line projects being proposed by EirGrid.

Existing supplies in the area are likely not to be able to meet future demands for electricity as early as 2012/2013.

The new power lines are needed to provide a future reliable and secure supply of electricity. The new power lines will increase competition and help reduce the cost of electricity to customers, and will help keep the north-east region on a level playing field in its ability to attract and retain high-tech industries. The new power lines also will facilitate the use of renewable energy in future

This is the reason EirGrid has produced what it believes is the best possible proposal and why it has been consulting on route

options since early October. More than 2,500 people have received information either via telephone, e-mail, letter, or at open days over the past two months, and no application will be made for planning permission until at least next spring.

EirGrid's policy of putting power lines overhead is in line with what happens all over Europe, where overhead lines are the norm. Practically all (97 per cent) of all European power lines are overhead. Nowhere in the world are there lines underground as long as the two proposed lines (80km and 58km approx).

It's better from a technical point of view to have the lines overhead. Based on international experience, an underground electricity cable would not provide the reliable, secure or economic service needed in the region. This is because long delays on repairs that can occur with underground cable could not be tolerated as it could result in power cuts in the region.

In contrast, the standard international method for power lines, which is overhead construction, results in fault-finding and repair generally measured in hours.

These lines have to go over-ground. The primary reason is because it takes too long to locate and repair faults on underground cables - weeks versus hours for over-ground cables. Security of electricity supply over such a huge area of the north-east means over-ground lines are essential. Only short stretches of power lines in cities and

built-up areas, where there is literally no room for pylons, are laid underground.

Industries are attracted to a region for many reasons, one of them being a dependable supply of electricity. New industries locating in Ireland discuss with EirGrid the terms, conditions, security of supply and the quality of the power being delivered.

People have concerns about health and EirGrid is anxious to meet with people and

ease those concerns in a straightforward manner, as well as dispel some of the myths associated with electricity transmission.

The fact is that extensive worldwide research, involving expenditure of over €440m, has found no conclusive evidence that extremely low frequency (ELF) EMFs from power lines are harmful to public health. This

research has been reviewed by international bodies including the WHO. It was also reviewed earlier this year by the Department for Communications, Energy and Natural Resources.

In March 2007, the Department of Communications, Marine and Natural Resources (DCMNR) published a report entitled 'Health Effects of Electromagnetic Fields', compiled by an international expert group. This document is available on their website, [www.dcmnr.gov.ie](http://www.dcmnr.gov.ie)

The conclusions were consistent with those of similar reviews conducted by authoritative national and international agencies. In relation to ELF EME, the report clearly states that "no adverse health effects have been established below the limits suggested by international guidelines".

EirGrid is satisfied from the totality of studies and the views of international authoritative agencies that the balance of evidence is that electric and magnetic fields do not have any adverse effect on health.

EirGrid is setting up meetings with groups and individuals who are concerned about possible adverse health impacts from overhead power lines, so they can reassure

them. The company is satisfied that there is no reason why the two proposed lines should have

any adverse effect on people's health or should be laid underground.

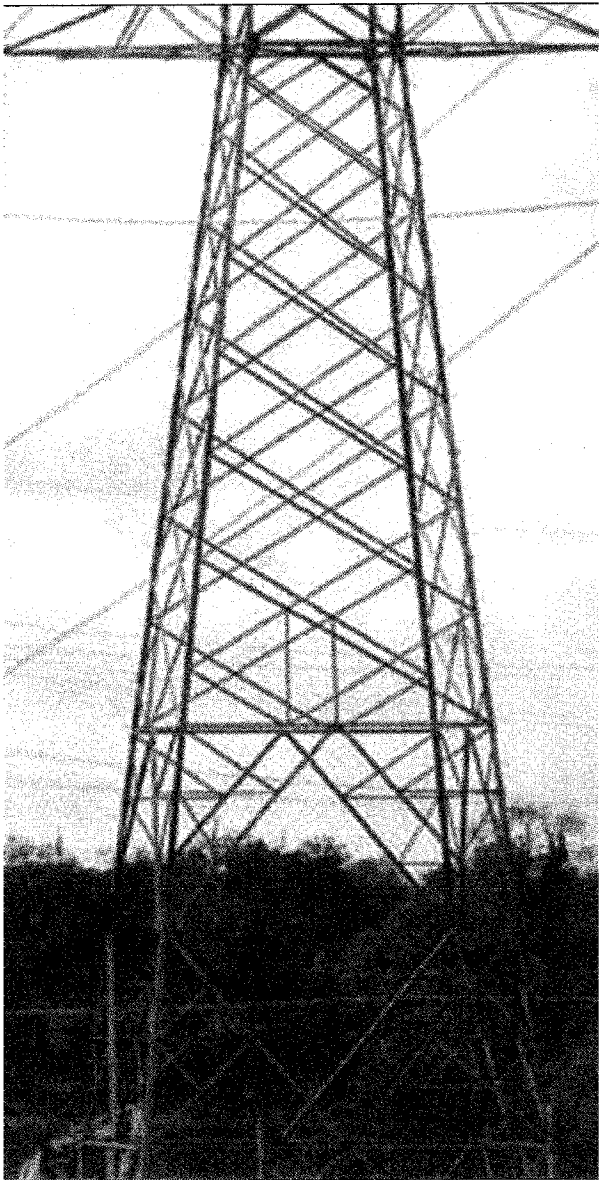
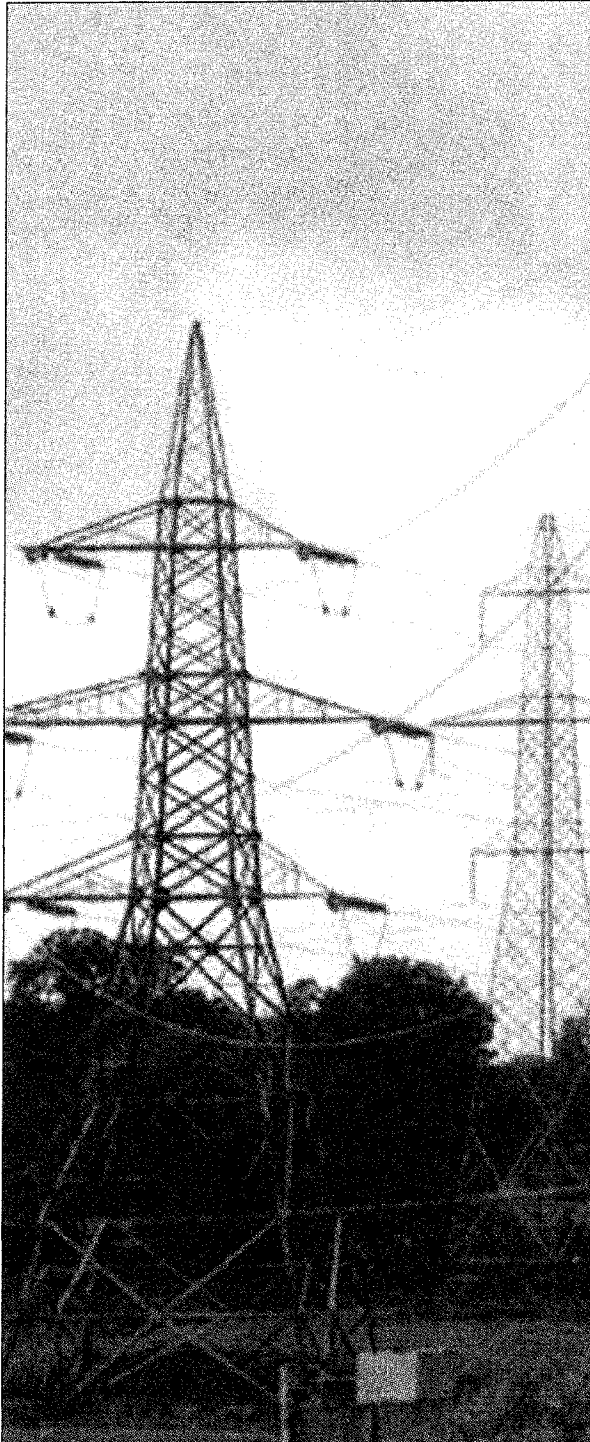
People often quote

individual studies when they voice their concerns about health. EirGrid advises anyone who is concerned to look at the totality of the research that is available and not just at any one study. The World Health Organisation (WHO) has looked at all the research and its most recent report, published in June 2007, states clearly that "the balance of evidence is that extremely low frequency electric and magnetic fields, at the levels to which members of the public are exposed from power lines, do not have adverse effect on health".

EirGrid is encouraging everyone with concerns or queries in relation to the proposed power lines to make contact through the advertised channels so that we can work together on getting these very important and beneficial projects underway.

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**"Industries are attracted to a region for many reasons, one of them being a dependable supply of electricity. New industries locating in Ireland discuss with EirGrid the terms, conditions, security of supply and the quality of the power being delivered"**



## **EIRGRID SAYS HEALTH FEARS ON PROPOSED POWER LINES ARE UNFOUNDED**

**“Examine all the research into electromagnetic fields and health”, it advises**

**January 14<sup>th</sup> 2008:**

EirGrid, the Transmission System Operator, is continuing to comprehensively address concerns expressed by some people in relation to the proposal to build a 400kV powerline between Woodland in Co Meath and Kingscourt in Co Cavan and a 400kV Interconnector between Cavan and Tyrone in Northern Ireland.

EirGrid points out that the consensus of major scientific organisations like the World Health Organisation does not suggest that electromagnetic fields (EMF) cause "any adverse health effects at levels generally encountered by members of the public".

While EirGrid understands that some people have expressed concerns in relation to health issues, it asks that people examine the whole body of evidence and the totality of the research available, rather than look at any one study into EMF as individual studies are limited and often contradict each other.

Since the 1970s, there have been thousands of studies carried out into electromagnetic fields and people sometimes base their concern on a single study with which they are familiar rather than considering the totality of available research.

"The World Health Organisation (WHO) is the top public health organisation in the world and it gathered a panel of interdisciplinary experts to look at all the available information and research. The WHO's 400 page report, published in June 2007, concluded that the research does not suggest electromagnetic fields (EMF) cause any adverse health effects at levels generally encountered by members of the public", says Mr Aidan Corcoran, Project Engineer, EirGrid.

He adds: "EirGrid constructs its facilities to the highest standards and manages them actively on an ongoing basis. 400kV power lines have been in place right across the country from Co Clare to Co Meath for more than twenty years already, without any adverse effects."

EirGrid complies with International Guidelines for EMF exposure set by the International Commission on Non-Ionizing Radiation Protection (ICNIRP), which advises the WHO. In its 2007 Report, the WHO confirmed these guidelines are sufficient to protect public health. The Department of Communications, Marine and Natural Resources published a report in 2007 and the conclusions of the international expert authors are consistent with the WHO Report.

EirGrid is continuing to consult with people on the shortlisted route corridors. Three route corridor options for both projects are currently being investigated. No decision has been made yet on the preferred route corridor for each line.

**ENDS**

For further information, please contact Mary Murphy: 01 2846338 / 087 2336415

## **EIRGRID EXPRESSES CONCERN AT INCIDENTS LAST NIGHT AFTER MEETINGS WITH RESIDENTS**

**16th January 2008:**

EirGrid has expressed its deep concern that members of its staff and consultants were harassed, physically intimidated and held against their will last night (Tuesday 15<sup>th</sup> January), following a series of very successful meetings in Co Cavan with local people about the much-needed proposed power line between Meath and Cavan.

After the meetings, 30 people not involved in the pre-booked meetings entered the premises and harassed and physically intimidated EirGrid staff, consultants and representatives in what was a very frightening and appalling incident. EirGrid emphasises that it is entirely unacceptable for its staff and consultants and representatives performing their lawful duties to be harassed, or intimidated.

The meetings had been scheduled to address the information requests of members of the community and six successful meetings had been held earlier this week, without incident.

“The unfortunate thing is that the only people who will lose out as a result of last night’s actions are people who want information, as we have had to cancel 12 further planned meetings this week. That is entirely regrettable,” said an EirGrid spokesperson.

EirGrid is asking anyone with information who wishes to feed into the decision on the route selection, to contact the company through the email addresses [MeathCavanPower@eirgrid.com](mailto:MeathCavanPower@eirgrid.com) or [CavanTyronelInterconnector@eirgrid.com](mailto:CavanTyronelInterconnector@eirgrid.com) or the information line - 1890 25 26 90

As previously stated, EirGrid intends to announce the preferred final route shortly, at which point the consultation process with the affected landowners and residents will begin. An Environmental Impact Statement which will deal with issues such as health, underground and other issues, will be submitted with the planning application.

In the last 14 weeks, EirGrid has been in communication with more than 5,000 people in advance of making a decision on the preferred route for the vital electricity power lines. The public consultation has taken the form of open days, face to face meetings, as well as thousands of communications via telephone information line and email and writing. Statutory consultation will begin when EirGrid lodges an application for planning permission with An Bord Pleanala. At that point, people will have the opportunity to make their views known to An Bord Pleanala who will make a final decision on whether the project proceeds.

ENDS

For further information please call Mary Murphy 087 2336415 / 01 2846338

**EIRGRID WELCOMES STATEMENT FROM MINISTER FOR COMMUNICATIONS,  
ENERGY AND NATURAL RESOURCES**

**Sunday, 20 January, 2008**

**Issued by EirGrid, Ireland's electricity transmission system operator.**

EirGrid welcomes the statement from the Minister for Communications, Energy and Natural Resources, Eamon Ryan TD, in relation to transmission infrastructure developments. This infrastructure is critical for economic development and for ensuring a secure and reliable supply for all electricity users.

We welcome his proposal that this issue be considered by the Joint Oireachtas Committee.

We agree with the Minister that issues relating to the development of Ireland's electricity transmission grid should be considered by policy makers. This is in light of the need for support for major developments of our national electricity grid to meet the needs of the economy, business, and all consumers.

Work being carried out by expert consultants commissioned by EirGrid on undergrounding of power lines, will be supplied to the Minister and to the Joint Oireachtas Committee for Communications, Energy and Natural Resources.

EirGrid acknowledges the considerable interest expressed by public representatives right across the political spectrum in ensuring that there is maximum information in the public domain on the question of undergrounding of transmission cables, and other technical aspects relating to electricity transmission infrastructure.

EirGrid will be supplying members of the Committee and the Minister with information compiled by the consultants and will be making this information publicly available. We look forward to consideration of the issues in the Oireachtas Committee.

EirGrid will also be supplying detailed analysis of issues around undergrounding to the Strategic Infrastructure Board when it applies for planning permission later this year for the Tyrone-Cavan and the Meath-Cavan 400kV lines.

ENDS

Editor's notes:

EirGrid is the independent electricity Transmission System Operator (TSO) in Ireland and the Market Operator in the wholesale electricity trading system.

EirGrid's role is to deliver quality connection, transmission and market services to generators, suppliers and customers utilising the high voltage electricity system, and to put in place the grid infrastructure required to support the development of Ireland's economy.

EirGrid develops, maintains and operates a safe, secure, reliable, economical and efficient transmission system.

**For further information, please contact [Mary Murphy](#) at 01 2846338**

**EIRGRID ASKS FOR COMMENTS AND SUBMISSIONS IN ADVANCE OF DECISION ON  
PREFERRED ROUTE FOR POWER LINES IN NORTH EAST**

**January 21<sup>st</sup> 2008**

EirGrid invites anyone who has not yet submitted information as part of the public consultation process on the proposed power lines for Cavan/Tyrone and Meath/Cavan and who wishes to do so, to email or post their submission to EirGrid by the 11<sup>th</sup> of February, 2008

EirGrid intends to announce the preferred route for the Cavan /Tyrone and Meath/Cavan proposed power lines within weeks of receiving all remaining submissions.

Since early October 2007, EirGrid has been engaged in an extensive consultation process with the people of Meath, Cavan and Monaghan on three proposed routes. Over the last 15 weeks, EirGrid has been in communication with more than 5,000 people about the vital electricity power lines for this North East region.

EirGrid and its consultants will process all the information received in order to determine a preferred route. The consultation process will continue with landowners, residents and other stakeholders in relation to the preferred route and other aspects of the project. Following this consultation, EirGrid will submit a planning application to An Bord Pleanala, later in 2008.

An Environmental Impact Statement (EIS) will be prepared to deal with all relevant issues, including health concerns and undergrounding versus overhead lines. The EIS will be submitted with the planning application and will be available to the public. Members of the public have seven weeks to make submissions to the planning authority from the date of application to An Bord Pleanala.

EirGrid emphasises the critical need for these new transmission lines for the delivery of high quality power in sufficient quantities for the needs of all customers in the region. EirGrid strongly believes that its present proposal for the upgrading of the transmission system is the best one.

As part of the ongoing consultation process, EirGrid invites anyone who wishes to submit information relating to the choice of route corridors, to email or post their views to the following addresses by the 11<sup>th</sup> of February, 2008: by email [MeathCavanPower@eirgrid.com](mailto:MeathCavanPower@eirgrid.com) or [CavanTyroneInterconnector@eirgrid.com](mailto:CavanTyroneInterconnector@eirgrid.com) or by post to EirGrid Plc, 27 Lower Fitzwilliam St, Dublin 2.

**Ends.**

**For more information contact Mary Murphy 01 2846338**



**Note to editors:**

Since last October, EirGrid has been engaged in an extensive consultation process on three proposed routes, in advance of making a decision on the preferred route for the vital electricity power lines. The public consultation has taken the form of open days, face to face meetings, as well as thousands of communications via the telephone information line, email and writing. EirGrid has noted the comments, observations and views expressed during the consultation on the selection of the preferred route for these much needed electricity lines.

## EIRGRID STATEMENT ON FLUORESCENT TUBE/POWER LINE PHOTOGRAPHS

February 1<sup>st</sup> 2008

The well known and normal phenomena of a fluorescent tube “glowing” if it is held directly beneath a high voltage power line does not imply adverse health implications, EirGrid assured people today. The electric field produced by the power line causes the tube to glow very dimly showing that there is electricity in the power line nearby, but as you move away a short distance the glow disappears quickly.

EirGrid aims to keep electricity lines as far away from homes as possible, and because of this there will be few houses within hundreds of metres from any proposed high voltage line.

Electric fields cannot penetrate walls. Electric fields from power lines cannot enter homes or businesses. Electric fields in people’s homes or places of work come from whatever electrical appliances and electrical wiring are in the home or business.

Power lines produce both magnetic and electric fields. It is the electric field alone which causes the fluorescent tube to ‘glow’. This “glowing” phenomena has no connection whatsoever with magnetic fields. The main debate about possible adverse health effects of power lines centres on the measurement of exposure to *magnetic fields*, not electric fields.

EirGrid is satisfied from the totality of studies and the views of international authoritative agencies like the WHO, that the balance of evidence is that extremely low frequency (ELF) electromagnetic fields (EMF) such as those produced by the proposed 400kV power lines do not have any adverse effects on health.

ENDS

Further information: Mary Murphy 087 233 6415 / 01 284 6338

## **EIRGRID STATEMENT ON VITAL PROPOSED POWER LINES**

**1<sup>st</sup> February 2008**

EirGrid is currently in a public consultation process in relation to the routing of two vital power line projects.

The overhead power line projects are two 400kV (kilovolt) electricity lines. The two lines – one from Tyrone to Cavan and one from Cavan to Meath – will bring major benefits to Irish electricity users and to counties Meath, Monaghan and Cavan.

### **QUALITY AND RELIABLE POWER:**

The new power lines will bring the equivalent of 'broadband power' to the region – that is, the power lines will help ensure the delivery of power in significant quantities, and with the high standards and reliability all consumers need. These proposed new lines are vital in order to facilitate competition as part of the All Island Market, and also to supply the needs of new and existing householders, farms, commercial businesses and industries. The new lines are needed because transmission lines in the region will reach full capacity in the future.

The key to the benefits of the new networks is the use of the standard international technology for delivery of high voltage power – which is overhead lines.

These lines will comply with all international standards and are of the same type as the two 400kV overhead lines already in place in Ireland which are 439 kilometers in length.

### **VITAL INVESTMENT FOR ATTRACTING AND RETAINING INDUSTRY:**

Undergrounding all or part of a Transmission Network presents problems for the secure and reliable operation of that network. The location and repair of faults on underground cables can take a number of weeks, depending on the type of fault and its location. For such an integral part of the transmission system, such a compromise to the security of supply would be unacceptable.

Industries are attracted to a region for many reasons, one of them being a dependable supply of electricity. A priority for new industries locating in Ireland is the cost, terms, conditions, security of supply and the quality of the power being delivered. A Transmission System depending on circuits of underground cable would not provide the supply necessary to attract the high quality type of industry being sought in Ireland.

### **OVERHEAD LINES AND SECURITY AND RELIABILITY:**

These proposed lines are similar to overhead lines which are standard throughout Europe and internationally. For instance, 97 per cent of high voltage lines in Europe are carried overhead. No 400kV power line of the length and type needed in the north-east has ever been placed underground anywhere in the world.

Based on international experience, an underground electricity line would not provide the reliable, secure or economic service needed in the region. This is because where an underground power line develops a fault, the time taken to find and repair the fault can be weeks or months. In contrast, the standard international method for power lines, which is overhead construction and which is planned here, results in fault-finding and repair generally measured in only hours.

## **HEALTH ISSUES:**

Ireland complies fully with all of the most up-to-date electric and magnetic field policies and regulations in Europe and internationally.

The World Health Organisation gathered a panel of experts to look at all the available information and research on electric and magnetic fields (EMF) and power lines and they most recently reported on this in June 2007. They concluded that the research has **not** established that EMF causes any adverse health effects at levels generally encountered by members of the public. Based on this, and a review of this issue by the Irish Department of Energy last year, EirGrid firmly believes that there is no health risk associated with high voltage power lines. We would not be proposing these lines if they presented a health risk to anyone. We comply with every international guideline for building power lines safely and we always will.

## **COST OF INFRASTRUCTURE:**

This is, of course, a very significant issue for electricity customers. In addition to the security, reliability and repair issue, EirGrid has a responsibility to build this line without excessive cost to all customers. All electricity customers share the entire cost of any transmission infrastructure constructed, through our bills. International experience is that underground cables at this voltage typically cost many times more than overhead lines.

ENDS

Further information: Mary Murphy 087 233 6415 / 01 284 6338

## **APPENDIX E**

### **[COUNCILLOR LETTERS]**

**November 6<sup>th</sup> 2008**

Dear TD/Senator/MEP

As you are probably aware, Eirgrid is the organisation responsible for putting in place major electricity transmission infrastructure to support all regions and the economy nationally. We are planning two projects in the North East and invite you to meet us for a one-to-one briefing about the projects on Tuesday, 13<sup>th</sup> November 2007, in Dublin. Please phone us on 1890 25 26 90 to arrange a suitable time to meet with us.

The two projects are:

- A new 400kV Interconnector between Cavan and Tyrone to more than double the current power transfer capacity between the North and the South. The new interconnector will span approximately 45km in the Republic of Ireland, will cost in the region of €180 million and will be routed from a proposed new substation near Kingscourt in Co Cavan, through Co Monaghan and onwards to Co Tyrone. This project is being undertaken in co-operation with Northern Ireland Electricity (NIE).
- A 400kV Power Line from Woodland (Co Meath) to Kingscourt (Co Cavan). It is approximately 58km long and will cost in the region of €100 million. This power line will reinforce the power system in the North East, facilitating competition and secure supplies of power for all customers.

The network strengthening in Cavan, Monaghan, and Meath will support growth in the region and ensure continuing reliability of supply as well as giving existing industries a major boost when competing for business and inward development in the area.

Both projects will

- Ensure a future secure supply of electricity throughout the North East.
- Facilitate cross-border sharing of electricity
- Help promote better competition
- Facilitate use of renewable energy
- Upgrade existing electricity supplies.

A number of route corridor options for both projects are currently being investigated and a preferred route will be chosen in 2008. All stakeholders have an opportunity to make their views known at this early stage, before route option studies are completed and a final route is chosen.

Maps and details about each of the proposed route corridor options for both projects are available on [www.eirgrid.com](http://www.eirgrid.com)

I look forward to hearing from you to arrange a meeting for Tuesday 13<sup>th</sup> November, or another date of your choosing, if that does not suit you.

Kind regards,

Yours sincerely

Aidan Corcoran  
Manager, Transmission Projects  
EirGrid



7<sup>th</sup> November 2007

Dear Councillor xx

Following a presentation that we made to you at the October meeting of Cavan County Council regarding the two projects that EirGrid is currently planning for the North East - the new 400kV powerline between Woodlands in Co Meath and Kingscourt in Co Cavan, and the North-South Interconnector between Kingscourt and Co Tyrone - I am writing to update you on progress since then, as we appreciate that you are probably being approached by constituents regarding the project.

#### **Meeting**

We would be happy to meet you in the next week or so to give you a detailed briefing, one-to-one, if you feel it would be useful. Please contact our dedicated lo-call information phonenumber, **1890 25 26 90**, to schedule a date and venue.

#### **Printed Materials**

We are in the process of publishing a number of printed materials in response to public queries, detailed below, and we would be happy to send you copies of these, if you wish – please let us know how many of each publication you would like us to send. You may telephone us on **1890 25 26 90** or email **MeathCavanPower@eirgrid.com**.

#### **Project Update**

Since we briefed you at the October meeting of Cavan County Council we have

- held a public Information Open Day in Kingscourt, Co Cavan on 17<sup>th</sup> October
- launched our information phonenumber (1890 25 26 90) and email service which have been very busy dealing with legitimate queries from the public
- updated our website, [www.eirgrid.com](http://www.eirgrid.com), with information on the project.

In response to queries raised by the public at the open days, on the information phone-line and on the email, we have:

- organised a repeat Information Day in Co Cavan, on Wednesday, 28<sup>th</sup> November in Cabra Castle, Kingscourt, from 3pm to 8pm, and we ask you to encourage your constituents to come along to find out more about the project and to have their queries answered;
- compiled a document of frequently asked questions raised by the public;
- prepared Factsheets on Powerlines and Health and on Overhead v Underground Powerlines;

Alongside these measures, EirGrid has published a booklet on Electro Magnetic Fields.

These materials are available to download from our website, [www.eirgrid.com](http://www.eirgrid.com), and we are also in the process of printing them, so do let us know if you would like us to send you copies (telephone **1890 25 26 90** or email **MeathCavanPower@eirgrid.com**).

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Sraid MacLiam lochtar Baile Atha Cliath 2

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Registered in Ireland No. 338522 V.A.T. No. IE 6358522H

[www.eirgrid.com](http://www.eirgrid.com)





I look forward to hearing from you and hopefully to meeting you in the coming weeks, either at a one-to-one briefing or at our Information Day in Kingscourt on the 28<sup>th</sup> November.

Kind regards,  
Yours sincerely

Aidan Corcoran  
Manager, Transmission Projects

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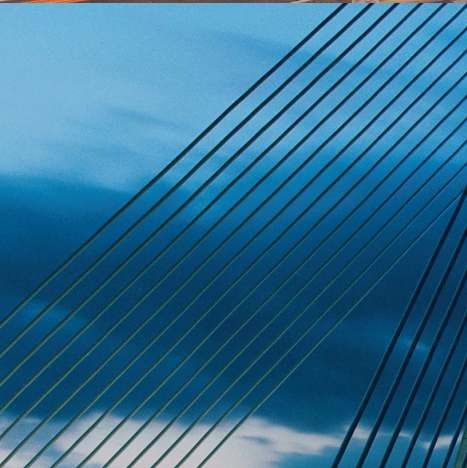
## **APPENDIX C**

**APPENDIX A OF THE FINAL RE-EVALUATION REPORT  
(2013) – REVIEW OF ISSUES RAISED IN WRITTEN  
SUBMISSIONS TO AN BORD PLEANÁLA AND  
PRESENTATIONS AT THE ORAL HEARING IN RESPECT  
OF THE PREVIOUS APPLICATION FOR APPROVAL (AN  
BORD PLEANÁLA VA0006)**



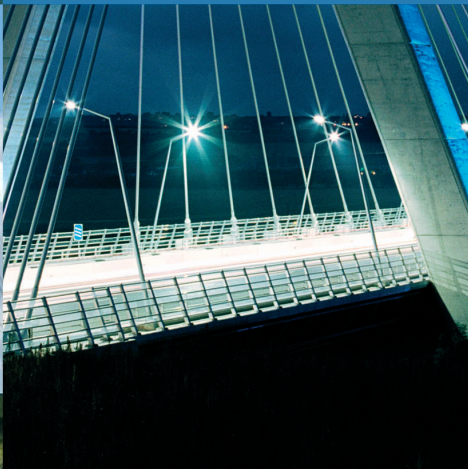


## North-South 400kV Interconnection Development



# Final Re-evaluation Report APPENDIX A

Review of Issues Raised in Written Submissions to  
An Bord Pleanála and Presentations at the Oral Hearing  
in respect of the Previous Application for Approval  
(An Bord Pleanála Reference VA0006)



Part Funded by the EU-TEN-E Initiative

## 1.0 Introduction

A previous application for planning approval for the North-South 400 kV Interconnection Development (An Bord Pleanála Reference VA0006) was lodged on 18<sup>th</sup> December 2009. The details of application were on public display during the period January – March 2010 (for a 10 week period) at the offices of An Bord Pleanála, the offices of the relevant County Councils (Meath, Cavan and Monaghan), at the Project offices at Navan and Carrickmacross, and on a dedicated web page.

Stakeholders, the general public and other interested parties had until the 12<sup>th</sup> March 2010 to make submissions / observations on:-

- The implications of the proposed development on the proper planning and sustainable development of the area; and
- The likely effects on the environment of the proposed development if carried out.

In addition, as part of the statutory consultation process, a number of Prescribed Bodies made observations on the content of the application for approval (including the Environmental Impact Statement (EIS)) to An Bord Pleanála.

In total, approximately 940 written submissions or observations were received in respect of the application.

In May 2010, An Bord Pleanála commenced an Oral Hearing in respect of the proposed development. Both Prescribed Bodies and interested parties (to include new parties to the application) had the opportunity to make an oral submission to the Hearing.

## 2.0 Approach to Submissions

A copy of every submission received by An Bord Pleanála was issued to EirGrid. In order to ensure that all of the submissions were considered by the relevant specialist project team member, an initial review process was conducted.

This initial review included the identification of the main issues in each submission under a number of key specialist topic areas. These topic areas related to various aspects of the proposed development and the contents of its application package (including environmental topics included in the EIS). These specialist topic areas are identified on **Table A1**.

The purpose of the review was not an end in itself but rather highlighted to the relevant specialist project team member when an issue relevant to their particular specialism was raised and to direct their attention to the need to review the submission in detail.

The output of the initial review process for each submission is detailed in **Table A2** located at the back of this Appendix.

<b>Topics</b>	
1	Air Noise and Vibration
2	Application Related
3	Consideration of Alternatives
4	Construction
5	Consultation
6	Cultural Heritage
7	Flora, Fauna and Fisheries
8	Health
9	Landscape and Visual Impact
10	Legal
11	Material Assets
12	Need
13	Operational
14	Planning Context
15	Property
16	Traffic
17	Soils, Water and Geology

**Table A1 Topic Headings Used to Review Submissions**

An explanatory note on these topics and the types of issues raised is set out below.

- **Air, Noise and Vibration** – The issues assigned to this topic related to Chapter 10 and 11 of Volume 2A and 2B of the 2009 Environmental Impact Statement. They included potential impacts arising from noise associated with the proposed pylons, transmission line and substation.

- **Application Related** – The issues assigned to this topic related to various aspects of the application package including *inter alia* the costs of purchasing the application, queries relating to mapping, photomontages etc.
- **Consideration of Alternatives** - The issues assigned to this topic primarily related to Chapter 4 and 5 of Volume 1 of the 2009 Environmental Impact Statement. They included issues relating to undergrounding as an alternative to OHL, route alternatives (including disused railbed and the M3), substation site alternatives, other technology options and tower design options.
- **Construction** – The issues assigned to this topic related to Chapter 4 of Volume 2A and 2B of the 2009 Environmental Impact Statement and included issues such as construction techniques and safety considerations.
- **Consultation** – The issues assigned to this topic primarily related to Chapter 3 of Volume 1 of the 2009 Environmental Impact Statement. The issues included observations relating to consultation with the public, stakeholders, landowners and Prescribed Bodies.
- **Cultural Heritage** – The issues assigned to this topic related to Chapter 14 of Volume 2A and 2B of the 2009 Environmental Impact Statement. They included potential impacts relating to archaeology, architectural heritage, demesnes etc.
- **Flora, Fauna and Fisheries** – The issues assigned to this topic related to Chapter 7 of Volume 2A and 2B of the 2009 Environmental Impact Statement. They included potential impacts relating to wildlife, flora, fauna (including Whooper Swans), trees, fisheries, etc.
- **Health Effects** – The issues assigned to this topic related to Chapter 6 of Volume 2A and 2B of the 2009 Environmental Impact Statement. They included potential impacts relating to health generally and EMF in particular.
- **Landscape and Visual Impact** - The issues assigned to this topic related to Chapter 12 of Volume 2A and 2B of the 2009 Environmental Impact Statement. They included potential impacts relating to the visual impact of the proposed pylons, transmission line and substation. It also included observations in respect of particular landscape types (e.g. local bogs, forestry etc.).

- **Legal** - The issues assigned to this topic included all observations relating to access rights for construction, maintenance and survey work, compensation, and owners' rights. It also considered observations relating to Strategic Infrastructure and EIA legislation (including *inter alia* Appropriate Assessment, the consideration of alternatives, transboundary and micro-siting).
- **Material Assets** – The issues assigned to this topic related to Chapter 5 of Volume 2A and 2B of the 2009 Environmental Impact Statement. They included potential impacts relating to the impact of the proposed development on farming practices, the community, tourism and livelihoods.
- **Need** – The issues assigned to this topic related to Chapter 2 of Volume 1 of the 2009 Environmental Impact Statement. The issues included demand and policy provisions relating to the proposed development.
- **Operational** - Issues assigned to this topic covered those relating to operational issues.
- **Planning Context** - The issues assigned to this topic related to Chapter 1 and 2 of Volume 1 of the 2009 Environmental Impact Statement and the Planning Context Report submitted with the planning application. The issues included observations relating to national, regional, and local development plan policy.
- **Property** - The issues assigned to this topic related to Chapter 1 and 2 of Volume 1 of the 2009 Environmental Impact Statement and the Planning Context Report submitted with the planning application.
- **Traffic** - The issues assigned to this topic related to Chapter 13 of Volume 2A and 2B of the 2009 Environmental Impact Statement. They included potential impacts relating to the impact of the proposed development on the road network, access points etc.
- **Soils, Geology and Water** - The issues assigned to this topic related to Chapter 8 and 9 of Volume 2A and 2B of the 2009 Environmental Impact Statement. They included potential impacts relating to the impact of the proposed development on geology, soils, rivers and lakes.



### **3.0 Response to Submissions**

In drafting witness statements for the Oral Hearing, each specialist project team member had regard to the issues raised in the submissions. Where the submission raised a very specific issue / query which may not already have been addressed in the application documentation this was specifically responded to.

Accordingly, the primary means of responding to all issues raised in the written submissions was during the previous application for planning approval and specifically the witness statements made by EirGrid and its Project Team to the Oral Hearing.

The primary means of responding to any new issues raised by Prescribed Bodies and interested parties (to include new parties) that made an oral submission to the Hearing, was through cross examination (prior to the adjournment of the Oral Hearing).

In June 2010, the EirGrid application was required to be withdrawn due to the discovery of an inadvertent error in the public notice. As such, the application for approval was not determined by An Bord Pleanála. Accordingly, the Oral Hearing was never completed including cross examination.

### **4.0 Submissions on the Previous Application for Approval and the Re-evaluation Report**

As set out in Chapter 1 of the Final Re-evaluation Report, EirGrid is undertaking “a *comprehensive review of the previous application for planning approval*” including but not restricted to “*the subject matter of that planning application, the EIS and other technical and environmental studies accompanying the application, alternatives considered in that application, and third party and other submissions made to An Bord Pleanála in respect of that application.*”

As part of the re-evaluation process, therefore, the project team has considered those issues that arose in all the written and oral submissions made on the previous application. Many of these issues related to the details of the previous application whereas the scope of the re-evaluation process is to ensure that there is an understanding of, and confidence in, EirGrid’s conclusions in respect of comparative evaluation of route corridor options and identification of the indicative line route based on updated constraints and other information.

In this regard, the re-evaluation stage in the project comprises a process of re-evaluation of the overall project, and does not concern the detailed routing or design of the proposed OHL and associated development. In developing its proposal in subsequent phases of design and environmental assessment, EirGrid and its consultants will consider the potential impact of the development on *inter alia* environmental topics. This will be addressed in the EIS that will accompany a future application for approval.

Accordingly, during the re-evaluation process those issues identified as particularly relevant to the scope of the re-evaluation process were considered. The issues identified tended to come under the Topic Headings identified in **Table A3**.

<b>Topic Headings</b>	
1	Consideration of Alternatives
2	Cultural Heritage
3	Flora Fauna and Fisheries
4	Landscape and Visual Impact
5	Need
6	Landscape and Visual Impact
7	Soils, Water and Geology

**Table A3**      **Headings / Sub Headings Particularly Relevant for the Re-evaluation Process**

The rationale why some of the issues raised by observers during the 2009 application were not considered relevant for detailed consideration in the re-evaluation stage (and specifically route corridor and indicative line route re-evaluation) is included in Chapter 7 of the Final Re-evaluation Report and includes *inter alia* issues / criteria that would be generally 'Neutral' for the purpose of the comparative evaluation of route corridor options, in that the results would be broadly the same for every route corridor option in the overall study area. These issues include those for which it is reasonably assumed that mitigation measures can and will be implemented and which will therefore be the same or similar for each identified corridor (e.g., safety and construction / operational issues) and those issues more appropriately addressed during subsequent detailed route design, preparation of EIS and planning stages.

However, it must be noted that all issues raised in the submissions on the previous application will continue to be considered as the project progresses towards a new application.

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-1	x								x				x	x				
WS-2					x			x										
WS-3					x			x										
WS-4					x			x	x				x		x			
WS-5							x											
WS-6	x				x			x	x									
WS-7		x		x	x			x	x							x		
WS-8	x				x			x	x									
WS-9					x			x										
WS-10	x						x	x	x									
WS-11					x													
WS-12					x			x	x									
WS-13					x					x								
WS-14							x			x				x				
WS-15																		
WS-16					x			x	x									
WS-17								x	x									
WS-18					x			x										
WS-19					x													
WS-20					x			x	x									
WS-21								x	x									
WS-22								x	x									
WS-23								x	x									
WS-24								x	x									
WS-25	x				x			x	x									
WS-26					x			x	x									
WS-27					x			x	x									
WS-28	x							x	x									
WS-29		x			x			x										
WS-30	x				x			x										
WS-31	x		x					x	x									
WS-32								x										
WS-33	x						x	x										
WS-34					x			x	x									
WS-35					x			x	x									
WS-36									x									
WS-37								x	x									
WS-38									x									
WS-39								x	x									

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-40								X	X				X	X	X			
WS-41								X							X			
WS-42							X	X	X							X		
WS-43	X				X		X	X	X				X		X	X		
WS-44									X									
WS-45					X			X	X				X					
WS-46								X	X						X	X		
WS-47								X	X						X	X		
WS-48					X			X	X						X	X		
WS-49	X				X			X	X						X	X		
WS-50					X			X	X				X		X	X		
WS-51	X								X									X
WS-52														X	X			
WS-53								X	X						X			
WS-54	X				X			X	X						X			
WS-55	X	X			X			X	X				X		X			
WS-56					X		X	X	X						X			
WS-57					X			X							X			
WS-58					X		X	X	X						X			
WS-59							X		X						X			
WS-60								X	X				X					
WS-61					X			X										
WS-62					X			X										
WS-63	X				X			X							X			
WS-64																		
WS-65					X									X	X			
WS-66					X		X	X	X						X			
WS-67					X				X						X			
WS-68	X				X		X		X				X		X			
WS-69							X	X					X		X			
WS-70	X				X			X	X				X		X			
WS-71					X		X	X	X									
WS-72		X			X		X	X	X									
WS-73		X			X		X	X	X						X			
WS-74	X						X	X	X						X	X		
WS-75							X	X	X						X	X		
WS-76	X			X	X		X	X	X						X			
WS-77					X			X	X						X			
WS-78								X	X									

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-79					x			x	x						x			
WS-80					x			x					x					
WS-81					x			x	x				x		x	x		
WS-82							x											
WS-83							x	x	x						x	x		
WS-84		x			x		x	x	x				x		x			
WS-85					x			x	x						x			
WS-86								x	x									
WS-87					x		x	x	x						x			
WS-88	x				x			x	x				x		x			
WS-89	x				x		x	x	x						x			
WS-90							x	x	x						x			
WS-91					x			x	x									
WS-92					x			x	x							x		
WS-93					x			x	x							x		
WS-94		x			x			x	x				x		x			
WS-95					x		x	x	x				x		x			
WS-96								x						x				
WS-97					x			x										
WS-98					x			x	x									
WS-99		x			x		x	x	x	x								
WS-100					x			x							x			
WS-101	x						x	x	x						x			
WS-102					x			x	x					x		x		
WS-103					x			x	x						x			
WS-104	x								x						x			
WS-105															x			
WS-106					x			x										
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WS-113																		
WS-114								x					x		x			
WS-115		x			x		x	x	x				x		x	x		
WS-116					x			x	x						x			
WS-117					x			x	x					x	x			

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-118					X			X	X									X
WS-119	X																	X
WS-120	X																	X
WS-121					X			X	X									
WS-122					X			X	X									
WS-123	X							X	X									X
WS-124	X							X	X				X		X			
WS-125	X				X			X	X						X			
WS-126															X			
WS-127	X																	
WS-128	X				X		X	X	X				X		X			
WS-129					X		X	X	X				X		X			
WS-130							X	X	X				X		X			
WS-131	X	X			X			X	X				X		X			
WS-132					X			X	X	X			X		X			
WS-133	X		X				X	X	X				X		X			
WS-134	X							X	X				X		X			
WS-135					X			X										
WS-136					X		X	X	X						X			
WS-137					X		X								X			
WS-138					X			X	X				X		X			
WS-139					X			X	X				X		X			
WS-140		X			X													
WS-141					X		X	X	X						X			
WS-142	X				X			X	X				X		X			
WS-143	X							X	X									
WS-144								X										
WS-145					X			X							X			
WS-146	X				X				X				X		X			
WS-147	X																	
WS-148					X			X	X						X			
WS-149	X	X			X			X						X	X			
WS-150										X				X				
WS-151					X			X	X						X			
WS-152					X													
WS-153								X					X		X			
WS-154	X							X							X			
WS-155																		
WS-156					X			X	X				X		X			

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-157	x							x	x						x			
WS-158								x	x									
WS-159	x			x	x		x	x	x						x			
WS-160					x			x	x						x			
WS-161								x										
WS-162							x	x					x					
WS-163			x		x			x	x				x					
WS-164								x	x									
WS-165							x	x	x									
WS-166	x				x			x	x					x	x			
WS-167							x	x	x						x			
WS-168					x			x	x						x			
WS-169					x			x	x									
WS-170								x	x					x				
WS-171	x						x	x	x						x			
WS-172					x			x	x									
WS-173					x			x	x				x					
WS-174					x			x	x							x		
WS-175	x			x	x			x	x				x					
WS-176							x	x	x				x					
WS-177							x	x	x									
WS-178							x	x	x									
WS-179								x	x									
WS-180							x	x	x									
WS-181																		
WS-182					x			x										
WS-183																		
WS-184					x		x	x	x								x	
WS-185																		
WS-186																		
WS-187								x	x									
WS-188																		
WS-189																		
WS-190																		
WS-191																		
WS-192																		
WS-193																		
WS-194																		
WS-195																		

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-196	x																	x
WS-197	x																	x
WS-198	x																	x
WS-199								x					x					
WS-200					x			x	x				x		x			
WS-201					x		x	x	x				x		x			
WS-202	x							x	x				x					
WS-203					x			x	x									
WS-204					x			x	x									
WS-205								x	x									
WS-206							x	x	x				x		x			
WS-207					x													
WS-208																		
WS-209																		
WS-210	x							x										
WS-211								x										
WS-212								x										
WS-213																		
WS-214																		
WS-215																		
WS-216																		
WS-217																		
WS-218																		
WS-219	x																	
WS-220																		
WS-221																		
WS-222	x																	
WS-223	x																	
WS-224	x																	
WS-225																		
WS-226																		
WS-227																		
WS-228																		
WS-229																		
WS-230	x																	
WS-231	x																	
WS-232	x																	
WS-233																		
WS-234																		



Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-235				X	X			X	X						X	X		
WS-236	X												X			X		
WS-237																		
WS-238					X			X	X					X				
WS-239				X	X			X	X				X	X	X			
WS-240					X			X	X				X	X	X			
WS-241				X			X	X	X				X					
WS-242								X	X				X	X	X			
WS-243							X		X				X	X	X	X		
WS-244								X	X				X	X	X			
WS-245							X	X	X					X		X		
WS-246							X		X					X	X			
WS-247	X				X		X	X										
WS-248																		
WS-249					X			X										
WS-250					X		X						X					
WS-251					X			X					X			X		
WS-252					X		X		X				X					
WS-253							X	X					X					
WS-254							X		X				X	X	X	X		
WS-255																		
WS-256				X				X	X				X			X		
WS-257					X			X	X				X					
WS-258								X										
WS-259				X				X					X		X			
WS-260								X	X				X		X			
WS-261				X					X	X			X	X	X			
WS-262							X	X	X									
WS-263					X			X	X					X	X			
WS-264													X	X				
WS-265					X		X	X	X				X					
WS-266								X	X				X		X			
WS-267								X	X						X			
WS-268					X				X									
WS-269	X				X		X	X	X				X		X			
WS-270					X				X				X		X			
WS-271	X				X			X	X				X		X			
WS-272							X	X	X				X		X			
WS-273	X				X		X	X	X				X		X			

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-274	x				x		x	x	x				x					
WS-275					x		x											x
WS-276	x																	
WS-277								x	x				x					
WS-278								x	x									
WS-279	x				x		x	x	x				x					
WS-280					x			x	x									
WS-281					x			x	x									
WS-282																		
WS-283								x	x				x					
WS-284									x				x					
WS-285																		
WS-286					x			x					x					
WS-287								x	x									
WS-288		x							x				x					
WS-289					x			x	x									
WS-290								x										
WS-291								x					x			x		
WS-292							x	x	x				x					
WS-293					x			x	x				x					
WS-294								x	x									
WS-295								x	x									
WS-296	x				x		x	x	x				x					
WS-297									x									
WS-298							x	x	x									
WS-299							x											
WS-300									x									
WS-301									x									
WS-302							x		x									
WS-303	x							x	x									
WS-304							x	x	x				x					
WS-305	x				x		x	x	x				x					
WS-306									x									
WS-307	x			x														
WS-308									x									
WS-309				x				x										
WS-310								x	x									
WS-311							x	x	x				x					
WS-312					x			x					x					

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-313									x				x					
WS-314								x	x				x					
WS-315															x			
WS-316								x										
WS-317					x													
WS-318				x				x	x				x	x	x			
WS-319								x	x						x			
WS-320								x	x						x			
WS-321				x						x								
WS-322					x			x							x			
WS-323				x											x			
WS-324																		
WS-325																		
WS-326	x			x	x		x	x	x				x		x			
WS-327					x		x	x	x				x		x			
WS-328				x	x		x	x	x									
WS-329	x				x		x	x	x				x	x	x			
WS-330					x		x	x	x						x			
WS-331					x		x	x	x									
WS-332					x			x	x									
WS-333					x		x	x	x									
WS-334	x				x			x	x				x		x			
WS-335	x				x			x	x				x		x			
WS-336	x							x	x				x		x			
WS-337					x			x										
WS-338					x			x	x									
WS-339	x						x		x									
WS-340	x						x	x	x									
WS-341					x													
WS-342					x		x	x	x									
WS-343	x				x		x	x	x									
WS-344					x		x	x	x									
WS-345					x			x	x									
WS-346	x							x	x									
WS-347					x			x	x									
WS-348																		
WS-349																		
WS-350					x			x	x									
WS-351	x				x			x	x									

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-352					x		x	x					x					
WS-353	x				x		x	x	x				x		x			
WS-354					x			x					x		x			
WS-355								x	x						x			
WS-356	x				x			x	x						x			
WS-357								x	x						x			
WS-358					x			x	x									
WS-359					x			x	x					x				
WS-360								x								x		
WS-361					x			x		x								
WS-362					x			x							x			
WS-363					x		x	x	x									
WS-364								x										
WS-365								x	x				x		x			
WS-366																		
WS-367																		
WS-368								x					x					
WS-369					x		x	x					x					
WS-370					x		x	x	x				x		x			
WS-371	x				x			x	x				x		x			
WS-372					x			x	x									
WS-373					x		x	x	x							x		
WS-374	x				x			x	x									
WS-375							x		x				x		x			
WS-376					x				x				x					
WS-377	x				x		x	x	x									
WS-378					x			x		x								
WS-379	x				x			x							x			
WS-380	x				x			x	x						x			
WS-381																		
WS-382					x								x					
WS-383																		
WS-384	x				x		x	x	x				x		x			
WS-385		x			x			x	x				x					
WS-386					x			x	x				x		x			
WS-387	x				x			x	x				x					
WS-388	x				x		x	x					x					
WS-389																		
WS-390					x			x	x				x	x				

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-391	x						x	x	x						x			
WS-392	x				x		x	x	x				x		x			
WS-393					x										x		x	
WS-394							x											
WS-395								x	x									
WS-396					x			x	x						x			
WS-397					x			x	x						x			
WS-398					x			x	x						x			
WS-399							x	x	x						x			
WS-400								x	x						x			
WS-401								x	x						x			
WS-402					x			x	x						x			
WS-403					x			x	x						x			
WS-404																		
WS-405	x			x				x	x									
WS-406																		
WS-407																		
WS-408																		
WS-409	x				x			x	x						x			
WS-410																		
WS-411																		
WS-412																		
WS-413	x				x			x	x						x			
WS-414								x	x						x			
WS-415					x			x	x						x			
WS-416					x			x	x						x			
WS-417																		
WS-418	x				x			x	x						x			
WS-419								x							x			
WS-420					x			x										
WS-421					x			x										
WS-422					x			x	x									
WS-423					x			x	x						x			
WS-424	x							x	x						x			
WS-425	x				x			x	x						x			
WS-426	x				x			x	x						x			
WS-427					x			x	x									
WS-428								x	x									
WS-429				x	x			x	x						x			

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-430							x		x				x					
WS-431				x	x		x	x	x				x					
WS-432	x						x	x	x				x		x		x	
WS-433	x	x			x		x	x	x				x		x			
WS-434	x		x		x		x	x	x					x		x		
WS-435							x	x	x						x			
WS-436							x						x				x	
WS-437	x				x			x	x						x			x
WS-438	x																	x
WS-439	x																	
WS-440	x																	
WS-441	x																	x
WS-442																		
WS-443																		x
WS-444																		x
WS-445																		x
WS-446																		x
WS-447			x					x					x		x			
WS-448			x					x					x		x			
WS-449	x				x			x	x				x		x			
WS-450					x			x					x					
WS-451								x										
WS-452																		
WS-453								x					x					
WS-454	x		x				x	x	x						x			
WS-455													x		x			
WS-456					x		x	x	x				x		x			
WS-457	x				x		x	x										
WS-458					x		x	x	x				x		x			
WS-459								x										
WS-460													x		x			
WS-461					x		x	x	x									
WS-462																		
WS-463													x		x			
WS-464	x				x		x	x	x				x		x			
WS-465					x		x	x	x									
WS-466													x					
WS-467					x			x	x									
WS-468									x				x					x

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-469																		
WS-470																		
WS-471																		
WS-472																		
WS-473																		
WS-474																		
WS-475																		
WS-476																		
WS-477													X		X			
WS-478					X			X					X	X	X			
WS-479					X		X	X					X	X	X			
WS-480	X				X			X					X	X	X			
WS-481					X			X					X	X	X			
WS-482					X			X					X	X	X			X
WS-483	X												X	X	X			
WS-484	X				X		X	X					X	X	X			
WS-485													X	X	X			
WS-486	X				X		X	X	X						X			
WS-487					X													
WS-488																		
WS-489					X													
WS-490																		
WS-491													X					
WS-492					X			X										
WS-493																		
WS-494													X					
WS-495					X			X	X									
WS-496																		
WS-497																		
WS-498																		
WS-499																		
WS-500													X					
WS-501								X										
WS-502					X			X	X									
WS-503					X			X	X									
WS-504				X	X		X	X	X				X	X	X			
WS-505	X			X	X			X	X									
WS-506													X					
WS-507													X	X	X			

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-508	x				x		x	x	x					x	x			
WS-509	x							x	x									
WS-510																		
WS-511													x		x	x		
WS-512					x		x	x	x									
WS-513																		
WS-514	x				x			x					x		x			
WS-515																		
WS-516							x											
WS-517																		
WS-518					x			x							x			
WS-519													x					
WS-520					x			x										
WS-521		x		x									x		x			
WS-522					x			x										
WS-523																		
WS-524																		
WS-525																		
WS-526																		
WS-527																		
WS-528																		
WS-529	x				x		x	x	x				x	x	x			
WS-530					x			x					x		x			
WS-531		x	x	x				x					x		x			
WS-532		x						x		x								
WS-533	x			x	x			x	x				x					
WS-534					x								x					
WS-535	x				x		x	x	x				x	x	x			
WS-536					x			x	x				x					
WS-537					x			x	x									
WS-538																		
WS-539																		
WS-540																		
WS-541	x		x	x	x		x	x	x	x			x	x	x		x	
WS-542	x																	
WS-543	x																	
WS-544	x																	
WS-545																		
WS-546																		



Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-547																		
WS-548					x			x	x						x			
WS-549										x								x
WS-550						x		x	x				x					
WS-551														x				
WS-552					x			x	x				x					
WS-553		x			x		x	x	x									
WS-554																		
WS-555								x	x									
WS-556	x																	x
WS-557	x																	x
WS-558																		
WS-559	x																	x
WS-560	x																	x
WS-561	x																	x
WS-562																		
WS-563	x									x								x
WS-564	x																	
WS-565	x												x		x			
WS-566	x				x		x	x	x						x			
WS-567				x	x			x	x						x			
WS-568					x		x	x	x				x		x			
WS-569	x				x		x	x	x						x			
WS-570																		
WS-571																		
WS-572																		
WS-573																		
WS-574																		
WS-575													x	x				
WS-576					x		x	x										
WS-577																		
WS-578																		
WS-579													x		x			
WS-580	x							x	x				x		x			
WS-581					x			x					x		x			
WS-582					x		x		x				x		x			
WS-583	x							x	x					x	x			
WS-584				x			x	x	x					x				
WS-585					x			x					x					

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-586					X			X	X				X	X				
WS-587					X		X	X	X				X					
WS-588	X				X		X	X	X				X		X			
WS-589	X				X		X	X	X				X	X				
WS-590				X	X				X									
WS-591					X			X	X				X		X			
WS-592					X			X	X				X					
WS-593		X			X		X	X										
WS-594					X					X			X		X			
WS-595	X				X			X	X				X		X			
WS-596		X			X			X	X				X		X			
WS-597	X							X	X				X		X			
WS-598	X						X	X	X				X		X			
WS-599	X				X		X	X	X				X		X			
WS-600	X				X		X	X	X				X					
WS-601	X				X			X	X				X		X			
WS-602								X	X				X		X			
WS-603					X			X	X				X		X			
WS-604					X		X	X	X				X		X			
WS-605	X			X	X		X	X	X	X			X		X			
WS-606					X			X	X						X			
WS-607					X			X	X				X		X			
WS-608					X		X	X	X				X		X			
WS-609								X	X									
WS-610																		
WS-611																		
WS-612																		
WS-613															X			
WS-614								X					X					
WS-615					X				X				X					
WS-616		X			X				X	X								
WS-617													X					
WS-618							X											
WS-619													X		X			
WS-620					X			X	X				X		X			
WS-621					X			X	X									X
WS-622	X												X		X			
WS-623	X				X			X										
WS-624					X			X	X				X		X			

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-625					X		X	X	X						X			
WS-626					X		X	X	X				X		X			
WS-627	X				X		X	X							X			
WS-628					X		X	X	X				X					
WS-629					X				X				X					
WS-630					X		X	X	X				X		X		X	
WS-631					X			X	X				X		X			
WS-632					X			X	X									
WS-633				X	X			X	X	X				X	X			
WS-634	X			X	X			X	X				X		X		X	
WS-635					X			X					X		X			
WS-636								X					X	X	X			
WS-637	X				X		X	X					X					
WS-638													X		X			
WS-639	X				X		X	X	X						X			
WS-640							X	X	X				X		X			
WS-641	X				X			X	X									
WS-642															X			
WS-643					X			X	X	X			X		X			
WS-644	X				X		X	X					X		X			
WS-645					X		X	X	X									
WS-646																		
WS-647																		
WS-648																		
WS-649										X								
WS-650															X			
WS-651																		
WS-652					X			X										
WS-653																		
WS-654														X	X			
WS-655			X		X		X	X	X				X		X			
WS-656					X			X										
WS-657		X																
WS-658					X		X	X	X									
WS-659		X			X		X	X					X					
WS-660					X			X							X			
WS-661					X			X							X			
WS-662													X					
WS-663					X			X	X				X			X		

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-664	x				x			x	x									
WS-665													x					
WS-666					x			x	x				x		x			
WS-667								x										
WS-668													x		x			
WS-669					x		x	x	x				x		x			
WS-670								x					x		x			
WS-671					x				x									
WS-672								x					x					
WS-673				x				x	x						x			
WS-674				x			x	x							x			
WS-675				x			x		x									
WS-676													x		x			
WS-677					x			x	x							x		
WS-678							x		x									
WS-679				x			x		x						x			
WS-680					x			x	x									
WS-681	x				x			x	x				x					
WS-682					x													
WS-683																		
WS-684																		
WS-685																		
WS-686							x		x				x		x			
WS-687								x	x				x		x			
WS-688	x			x				x	x									
WS-689	x				x		x	x	x				x					
WS-690					x			x					x					
WS-691				x				x	x				x		x			
WS-692					x		x	x	x									
WS-693																		
WS-694				x			x	x					x		x			
WS-695	x				x		x	x	x				x		x			
WS-696					x		x		x				x		x			
WS-697				x				x					x					
WS-698								x	x				x					
WS-699									x				x					
WS-700							x	x	x				x					
WS-701					x			x										
WS-702					x				x									

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-703	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
WS-704								x										x
WS-705								x										x
WS-706																		x
WS-707																		x
WS-708																		x
WS-709	x				x		x	x							x			
WS-710							x	x	x				x		x			
WS-711					x		x	x	x				x		x			
WS-712													x					
WS-713					x				x						x			
WS-714					x			x	x				x		x			
WS-715																		
WS-716					x			x	x									
WS-717					x				x						x			
WS-718								x	x									
WS-719								x							x			
WS-720								x	x				x		x			
WS-721					x			x	x						x			
WS-722									x				x					
WS-723									x				x					
WS-724								x	x						x			
WS-725								x	x						x			
WS-726								x	x				x		x			
WS-727								x	x						x			
WS-728					x			x	x						x			
WS-729								x	x									
WS-730					x			x	x						x			
WS-731									x									
WS-732															x			
WS-733									x									
WS-734							x		x						x			
WS-735								x	x						x			
WS-736							x		x						x			
WS-737							x	x	x									
WS-738								x	x									
WS-739																		x
WS-740																		
WS-741																		

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-742																		
WS-743																		
WS-744																		
WS-745																		
WS-746																		
WS-747					x		x	x							x			
WS-748	x				x		x	x							x			
WS-749								x	x						x			
WS-750	x				x			x	x									
WS-751																		
WS-752	x						x	x										
WS-753														x				
WS-754							x	x										
WS-755									x									
WS-756								x	x									
WS-757					x			x	x									
WS-758							x	x	x									
WS-759								x	x									
WS-760					x			x	x									
WS-761							x	x	x									
WS-762																		
WS-763					x		x	x	x									
WS-764					x			x										
WS-765					x													
WS-766							x		x									
WS-767					x													
WS-768																		
WS-769																		
WS-770																		
WS-771																		
WS-772																		
WS-773																		
WS-774																		
WS-775																		
WS-776																		
WS-777																		
WS-778	x							x	x									
WS-779					x			x	x									
WS-780				x			x	x	x									

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-781							X	X	X						X			X
WS-782							X	X	X									
WS-783							X	X	X									
WS-784				X				X	X				X					
WS-785					X			X	X				X		X			
WS-786								X	X				X		X			
WS-787			X		X			X	X				X		X			
WS-788					X		X	X	X				X		X			
WS-789	X				X		X	X	X				X		X	X		
WS-790							X	X	X				X			X		
WS-791							X	X	X				X			X		
WS-792					X		X	X	X				X		X	X		
WS-793							X	X	X				X		X	X		
WS-794					X			X	X				X		X	X		
WS-795							X	X	X				X		X	X		
WS-796							X	X	X				X		X	X		
WS-797	X				X			X	X				X		X			
WS-798	X				X		X	X	X				X		X			
WS-799					X			X	X				X		X	X		
WS-800					X		X	X	X				X		X	X		
WS-801					X			X	X				X		X			
WS-802								X	X	X			X					
WS-803					X			X	X				X					
WS-804					X		X	X	X				X					
WS-805					X		X	X	X				X		X	X		
WS-806					X			X	X				X		X	X		
WS-807	X						X	X	X				X					X
WS-808																		
WS-809				X									X		X			X
WS-810	X												X		X			
WS-811					X		X	X	X				X					
WS-812					X		X	X	X				X		X			
WS-813	X				X		X	X	X				X		X			X
WS-814	X												X		X			
WS-815								X					X					
WS-816													X		X			
WS-817					X		X	X	X				X		X			
WS-818													X					
WS-819					X			X					X					

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists	
WS-820																			
WS-821					X			X	X				X		X				
WS-822													X						
WS-823					X			X					X		X				
WS-824					X		X	X											
WS-825																			
WS-826										X					X				
WS-827					X			X	X										
WS-828					X			X	X										
WS-829													X		X				
WS-830					X			X	X				X		X				
WS-831	X						X	X	X						X	X			
WS-832	X				X		X	X	X						X				
WS-833								X	X						X				
WS-834					X			X	X				X		X				
WS-835	X						X	X	X						X				
WS-836							X								X				
WS-837			X		X		X	X	X				X		X				
WS-838					X		X	X	X						X				
WS-839			X		X		X	X	X					X	X				
WS-840	X							X											
WS-841	X				X		X	X	X				X		X				
WS-842					X			X	X										
WS-843					X		X		X										
WS-844					X			X	X										
WS-845					X			X	X	X									
WS-846							X	X	X										
WS-847									X						X				
WS-848				X					X						X				
WS-849					X		X	X	X						X				
WS-850					X		X	X	X						X				
WS-851					X		X	X	X						X				
WS-852					X		X	X	X						X				
WS-853					X			X	X						X				
WS-854	X			X	X			X	X						X				
WS-855			X				X	X	X						X				
WS-856							X	X	X						X				
WS-857							X	X	X						X				
WS-858								X	X				X		X				



Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-859					X		X	X	X									
WS-860																		
WS-861																		
WS-862																		
WS-863													X		X			
WS-864					X		X	X	X						X			
WS-865					X		X	X	X						X			
WS-866					X		X	X	X						X			
WS-867					X		X	X	X						X			
WS-868	X				X				X				X		X			
WS-869									X				X		X			
WS-870							X	X	X				X	X				
WS-871							X	X	X				X	X				
WS-872							X	X	X				X		X			
WS-873	X				X		X	X	X						X	X		
WS-874					X		X	X	X						X			
WS-875			X	X			X	X	X						X			
WS-876					X			X	X				X		X			
WS-877					X			X	X				X		X			
WS-878									X				X		X			
WS-879					X			X					X		X			
WS-880					X			X					X		X			
WS-881					X		X	X	X				X		X			
WS-882					X		X	X	X						X			
WS-883													X					
WS-884															X			
WS-885							X	X	X						X			
WS-886							X	X	X					X	X			
WS-887							X	X	X					X	X			
WS-888														X	X			
WS-889								X	X					X	X			
WS-890									X						X			
WS-891									X					X				
WS-892					X			X	X									
WS-893																		
WS-894	X												X		X			
WS-895				X	X		X	X	X				X		X			
WS-896								X	X									
WS-897	X								X				X					

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
WS-898	x				x			x	x				x		x	x		
WS-899			x				x	x	x									
WS-900				x	x			x	x									
WS-901															x			
WS-902					x			x	x									
WS-903					x			x	x									x
WS-904																		
WS-905																		
WS-906																		
WS-907																		
WS-908																		
WS-909	x	x			x			x	x						x			x
WS-910	x	x			x			x	x									
WS-911	x				x		x	x	x									
OS-1		x																
OS-2			x		x				x						x			
OS-3					x		x	x	x						x			
OS-4													x					
OS-5					x													
OS-6				x					x									
OS-7			x		x		x	x								x		
OS-8								x	x							x		
OS-9																		
OS-10	x	x			x		x	x	x								x	
OS-11	x						x											
OS-12										x								
OS-13		x							x									
OS-14			x															
OS-15					x				x									
OS-16									x									
OS-17	x	x		x	x			x	x									
OS-18					x				x									
OS-19	x	x							x									
OS-20																		
OS-21					x			x										
OS-22									x									
OS-23									x									
OS-24								x	x									
OS-25								x	x									

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
OS-26			x				x	x	x	x			x			x		
OS-27		x	x		x		x	x	x	x			x			x		
OS-28													x					
OS-29									x	x			x					
OS-30									x				x					
OS-31								x	x	x			x					
OS-32					x			x	x									
OS-33												x						
OS-34	x						x	x					x					
OS-35									x									
OS-36									x	x			x					
OS-37									x				x					
OS-38																		
OS-39									x				x		x			
OS-40									x	x			x					
OS-41	x								x	x			x					
OS-42																		
OS-43			x							x					x			
OS-44									x	x					x			
OS-45													x					
OS-46																		
OS-47																		
OS-48																		
OS-49																		
OS-50			x						x	x					x			
OS-51	x								x	x					x			
OS-52	x								x	x					x			
OS-53	x								x						x			
OS-54									x						x			
OS-55									x						x			
OS-56									x	x					x			
OS-57									x	x					x			
OS-58									x	x					x			
OS-59	x								x						x			
OS-60	x																	
OS-61	x																	
OS-62	x																	
OS-63	x																	
OS-64	x																	

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
OS-65	x							x	x	x			x	x	x			
OS-66			x		x			x	x				x		x		x	
OS-67								x	x				x					
OS-68					x				x	x				x				
OS-69									x	x			x					
OS-70									x	x			x		x			
OS-71									x	x			x					
OS-72			x															
OS-73									x	x					x			
OS-74			x		x													
OS-75							x							x				
OS-76							x											
OS-77													x					
OS-78																		
OS-79								x										
OS-80			x		x			x	x	x					x		x	
OS-81									x	x					x			
OS-82					x											x		
OS-83																		
OS-84								x		x					x			
OS-85								x										
OS-86									x									
OS-87									x									
OS-88									x	x								
OS-89									x	x								
OS-90									x	x								
OS-91									x	x								
OS-92									x									
OS-93																		
OS-94																		
OS-95																		
OS-96																		
OS-97																		
OS-98																		
OS-99																		
OS-100																		
OS-101																		
OS-102																		
OS-103																		

Publish ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
OS-104					x		x	x		x								
OS-105	x	x							x	x			x			x		
OS-106	x	x				x			x	x			x					
OS-107	x	x	x			x	x	x	x	x			x	x	x	x		
OS-108		x		x		x	x	x		x			x		x	x	x	
OS-109						x	x	x		x						x		
OS-110																		
OS-111											x							
OS-112							x	x					x	x			x	
OS-113								x										
OS-114							x							x				
OS-115									x	x			x		x			
OS-116									x	x			x					
OS-117							x	x		x			x					
OS-118							x			x			x					
OS-119																		
OS-120		x							x	x					x			
OS-121									x	x					x			
OS-122									x	x					x			
OS-123									x	x					x			
OS-124		x							x	x					x		x	
OS-125									x	x					x			
OS-126							x	x	x	x					x			
OS-127							x	x	x	x					x			
OS-128	x	x					x	x	x	x					x			
OS-129									x	x					x			
OS-130									x	x					x			
OS-131									x	x					x			
OS-132																		
OS-133									x	x								
OS-134			x															
OS-135									x	x								
OS-136									x	x								
OS-137			x						x	x								
OS-138									x	x								
OS-139									x	x					x			
OS-140			x						x	x					x			
OS-141																		
OS-142			x						x									

Publist ID	Air Noise and Vibration	Application Related	Construction	Consultation	Consideration of Alternatives	Cultural Heritage	Flora, Fauna and Fisheries	Health	Landscape and Visual Impact	Need	Operational	Legal	Material Assets	Planning Context	Property	Traffic	Soils, Water & Geology	Relevant to all Specialists
OS-143			X		X													
OS-144					X													
OS-145							X											
OS-146			X															
OS-147					X	X			X									
OS-148							X		X	X			X		X			
OS-149			X							X			X					
OS-150			X			X				X			X					
OS-151						X							X					
OS-152			X			X			X	X		X	X	X	X		X	
OS-153						X	X		X	X			X	X	X			
OS-154						X												
OS-155	X				X	X			X	X				X		X		



## **APPENDIX D**

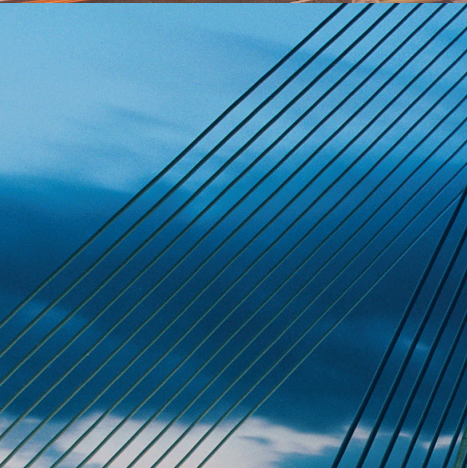
### **APPENDIX B OF THE FINAL RE-EVALUATION REPORT (2013) – RESPONSE TO SUBMISSIONS AND OTHER ENGAGEMENT ARISING DURING THE RE-EVALUATION REPORT**







# North-South 400kV Interconnection Development



# Final Re-evaluation Report

## APPENDIX B

Response to Submissions and Other Engagement  
arising during the Re-evaluation Process



Part Funded by the EU-TEN-E Initiative



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# 1 THE RE-EVALUATION PROCESS AND CONSULTATION

## 1.1 THE PRELIMINARY RE-EVALUATION REPORT

Since the withdrawal of the previous application in respect of the North-South 400 kV Interconnection Development Project in July 2010, EirGrid has commenced the process of preparing a new application for the proposed transmission infrastructure development by means of a comprehensive re-evaluation of the project.

A key deliverable of this re-evaluation process was the publication of a Preliminary Re-evaluation Report in May 2011, which documented the strategic issues and decisions that will inform and shape the project – including the need for the project, technical alternatives, the study area for the project, environmental and other constraints within the study area, identification of route corridor options, evaluation of route corridor options, and identification of an indicative line route within an identified preferred route corridor.

The Preliminary Re-evaluation Report, published in May 2011, formed the focus for structured public and stakeholder consultation (including engagement with directly affected landowners)<sup>1</sup> to obtain feedback on the content and conclusions of the Preliminary Report, as well as to discuss and address general and specific issues raised in respect of the overall proposed Interconnection Development.

The key conclusions of the Preliminary Re-evaluation Report were as follows:-

1. There is still a clear and immediate need for additional high-capacity interconnection with Northern Ireland. This will provide significant benefits for the country by means of the following:-
  - Improve competition in the all-island electricity market;
  - Improve security of electricity supply; and
  - Support the ongoing and future development of renewable power generation.
  
2. There remains a need (in the medium to long term) to reinforce the transmission network in the north-east area of the Republic of Ireland;

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<sup>1</sup> References to landowners in this Report should at all times be taken to mean those landowners who will be directly affected by the proposed development.

3. The best technological solution for this project is a 400 kV Alternating Current (AC) single-circuit Overhead Line (OHL), running from the existing Woodland Substation in County Meath to a new substation at Turleenan in County Tyrone, which is being proposed separately by Northern Ireland Electricity (NIE);
4. Undergrounding of short sections of the 400 kV line is potentially feasible; however, to date no areas that would warrant undergrounding have been identified, other than the approach to Woodland substation;
5. The previously proposed intermediate substation in the vicinity of Kingscourt, County Cavan is not now expected to be required within the next decade and as a result it will not be included in the new application for planning approval of the North South 400 kV Interconnection development.
6. Each of the route corridors identified as potentially feasible options for consideration in the previous application for planning approval of the North-South 400 kV Interconnection Development remain viable as a routing option for the proposed development;
7. Identified Route Corridor 3B in the Meath Study Area and Route Corridor A in the Cavan-Monaghan Study Area remain the corridors that are considered to strike the best balance between technical, environmental, community and other evaluation criteria. The identified indicative line route within these route corridors is broadly similar to that line route proposed in the previous application; however, some modifications have been made, including:-
  - Removal of the previously proposed Moyhill Substation near Kingscourt and certain modifications to the indicative line route associated with this; and
  - Local modification of the indicative line route to avoid new houses.

## 1.2 THE CONSULTATION PROCESS

Following publication of the Preliminary Re-evaluation Report, there occurred an eight-week period of public consultation, from May 9th to July 1st, 2011, wherein EirGrid invited feedback from all interested stakeholders on the findings of the Report. Notwithstanding these specified dates, EirGrid considered all feedback that was received outside this period, and this feedback has been considered as part of the re-evaluation process.

In particular, as discussed at **Section 1.5.2**, EirGrid undertook a structured process of landowner engagement in respect of the conclusions of the Preliminary Re-evaluation Report, and facilitated engagement with other interested parties outside the specified consultation period.

In summary, consultation opportunities arose in respect of the Preliminary Re-evaluation Report between EirGrid and:-

- The general public;
- Landowners;
- Observers in respect of the previous application for approval for the Meath-Tyrone 400 kV Interconnection Development (An Bord Pleanála Reference VA0006);
- County Councils;
- Elected representatives;
- Project specific interest groups; and
- Local business and interest groups.

### 1.3 CONSULTATION TERMS OF REFERENCE

As part of the consultation process, the Preliminary Re-evaluation Report and an associated community update brochure were made publicly available for consideration and comment. The documents were also published on EirGrid's project website. EirGrid invited stakeholders to provide feedback on the content of and findings in the Preliminary Re-evaluation Report, as well as the overall development, in order to learn of any new insights on aspects of the project, which would inform the Final Re-evaluation Report, and would contribute to the ongoing development of the project, ultimately leading to a new application for statutory consent.

In addition to this, as noted above, EirGrid pro-actively engaged with landowners and other stakeholders, to explain the project process, and to seek feedback on the conclusions of the Preliminary Re-evaluation Report, and on the development of the North-South 400 kV Interconnection Development project in general.

Stakeholders were invited to submit their feedback on the development and the content and findings of the Preliminary Re-evaluation Report. Stakeholders were also specifically asked to consider the following questions:-

1. Has EirGrid considered all relevant criteria in determining that the optimum technical solution for this project is an overhead line? If not, what additional information should EirGrid consider, or what viable, cost-effective, technically appropriate, and environmentally sensitive alternative would you suggest?
2. Have all environmental criteria been appropriately considered? Is there anything else that you think should be looked at?
3. Are there any other key issues that EirGrid should consider before submitting a new application to An Bord Pleanála?



## **1.4 PARALLEL GOVERNMENT ENDORSED REVIEW AND CONSULTATION ON MATTERS RELATED TO THE NORTH-SOUTH INTERCONNECTION PROJECT**

Outside the formal period of public consultation in respect of the Preliminary Re-evaluation Report, the Minister for Communications, Energy and Natural Resources commissioned an International Expert Commission (IEC) to review and report on *a case for, and cost of, undergrounding all or part of the Meath-Tyrone 400 kV Interconnection Development*. This review was published in January 2012; subsequently in June 2012, the Joint Oireachtas Committee (JOC) on Communications, Natural Resources and Agriculture published a report on its consideration of the IEC review. Following this, in July 2012, the Department of Communications, Energy and Natural Resources (DCENR) published a *Government Policy Statement on the Strategic Importance of Transmission and Other Energy Infrastructure*.

The findings of the IEC review, the JOC report, and the subsequent Government Policy Statement, have been considered by EirGrid in the Final Re-evaluation Report; however, it is acknowledged by EirGrid that these documents were not available for public consideration during the period of the formal public consultation process in respect of the Preliminary Re-evaluation Report. In this context, this Feedback Report does not set out EirGrid's response to these various documents; rather they are addressed in the Final Re-evaluation Report. However, it should also be noted that consultation did form part of the IEC review, the JOC report, and the subsequent Government Policy Statement.

This Government endorsed review process commenced in July 2011 and concluded in July 2012 with the publication of the Government Policy Statement, which extended beyond the timeframe for public consultation in respect of the Preliminary Re-evaluation Report. However, it was considered premature to conclude and publish the Final Re-evaluation Report and supporting appendices, including this Report, in advance of the conclusion of this parallel review process.

## **1.5 NATURE OF FEEDBACK**

### **1.5.1 Written Feedback**

In total, 18 no. written submissions were received from stakeholders during the public consultation period in respect of the Preliminary Re-evaluation Report. These primarily comprised private individuals (a number of whom are also landowners) within the area of the indicative line route of the proposed North-South 400 kV Interconnection Development, as identified in the Preliminary Re-evaluation Report. Submissions were also received from statutory bodies and other organisations.

A summary of these stakeholders is set out in **Table 1** below and addressed in detail in **Section 2**. All submissions are allocated a specific reference number (e.g., FS-1, FS-2 etc.), which is used throughout this Feedback Report. This Report specifically acknowledges those statutory bodies and other organisations that made submissions. However, in the context of legal obligations in respect of data protection, this Report does not detail any information which might reveal the identity of private individuals/landowners. These parties will be separately informed of their unique reference number, enabling them to determine from this Report how their particular submission has been considered.

**Table 1: Written Submissions Received during the Public Consultation Process in respect of the Preliminary Re-evaluation Report**

<b>Submission No.</b>	<b>Submission Body</b>	<b>Statutory Body / Organisation Detail</b>
FS-1	Private Individual	
FS-2	Landowner	
FS-3	Landowner	
FS-4	Landowner	
FS-5	Statutory Body	NRA
FS-6	Landowner	
FS-7	Landowner	
FS-8	Statutory Body	Monaghan County Council
FS-9	Organisation	NEPP
FS-10	Organisation	Sinn Fein
FS-11	Organisation	Monaghan Anti-Pylon Committee
FS-12	Organisation	AMP/SAFE
FS-13	Private Individual	
FS-14	Private Individual	
FS-15	Private Individual	
FS-16	Organisation	Doohamlet District Community Development Association
FS-17	Private Individual	
FS-18	Private Individual	

In this Report, EirGrid and its consultants have sought to provide a comprehensive response to specific and detailed issues raised in these written submissions. These are set out in **Section 2**, and referenced by submission number. Where issues are referred to in general terms in the submissions, **Section 4** of this Report sets out the manner in which EirGrid and the Project Team has/will respond to them. This includes issues which are of relevance for the detailed design and EIA stages in the project development process e.g., the likely ecology, landscape and agronomy impacts associated with the development.

### 1.5.2 General Landowner Feedback

EirGrid continues to consult with potentially directly affected landowners on the North-South 400 kV Interconnection Project, both as part of the re-evaluation process and in terms of the on-going development of the project in general. Specifically, this stakeholder consultation phase in respect of the Preliminary Re-evaluation Report included initial landowner engagement, based upon the identified indicative line route and other conclusions of the Preliminary Report. This consultation has *inter alia* sought to identify localised constraints, and other landowner-specific issues, that:-

- Might alter the conclusions of the Preliminary Re-evaluation Report (which would thereby be reflected in the Final Re-evaluation Report); and/or
- Inform the progress towards the Preferred Project Solution (based on the undertaking of more detailed surveys and studies to confirm that the indicative project solution is feasible, taking into account often competing environmental, technical and land-use issues); and/or
- Inform EirGrid of landowner-specific preferences regarding matters of siting of structures, and other site-specific matters regarding the planned Interconnection Development.

As much of the landowner engagement focused on more detailed site specific issues, including the project's potential impact on particular landholdings, this engagement was not necessarily restricted to more strategic issues raised in, or concerning, the Preliminary Re-evaluation Report. These more specific issues will be dealt with in on-going engagement with landowners during the subsequent detailed line design phase, which in turn will inform the final proposal and associated EIS.

During landowner engagement, a number of queries and issues were also raised that relate to the project and the re-evaluation process, which are considered to require a more detailed response. These issues have been grouped into a series of questions, set out in **Table 2** below, and are addressed in **Section 3** of this Report.

As noted above, how EirGrid and the Project Team has/will respond to particular issues which have been raised by landowners and which are of relevance for the detailed design and EIA stages in the project development process e.g., the likely ecology, landscape and agronomy impacts associated with the development is set out in **Section 4**.

It should be noted that landowner engagement, specifically regarding route selection and the siting of structures, will continue through the ongoing project development process.

**Table 2: Specific Issues raised During Landowner Engagement**

Enquiry No.	Detail
E-1	Is there an actual need for the project given the economic downturn?
E-2	Is the line route, as indicated, fixed or is there an element of flexibility at this stage?
E-3	Could it go along an existing disused railway line?
E-4	Why is the substation at Moyhill no longer deemed necessary?
E-5	Can EirGrid prove that no adverse health impacts will be associated with the project if it proceeds? It is felt that <i>“too much emphasis has been placed on Whooper Swans and archaeology and not enough on human health”</i>
E-6	Why can the line not be undergrounded?
E-7	Concerns for impact on agriculture, with a request that in order to minimise crop damage, construction should only occur <i>“after the harvest”</i>
E-8	Impacts on air space, including flying aircraft
E-9	Improvements on timing of landowner engagement, with a request for <i>“more time to review the information and literature”</i> before meeting with landowner agents

### 1.5.3 Other Engagement Feedback

EirGrid continues to engage and consult with interested parties on the North-South 400 kV Interconnection Development (including outside of the formal re-evaluation consultation process which took place between May and July 2011). Such additional engagement and consultation has also raised issues of relevance, and accordingly, EirGrid and its consultants have taken the opportunity to include feedback from that consultation in this Report. This feedback has been collated from a variety of sources including written submissions, phone calls and meetings (including meetings with elected members).

For the purpose of clarity, this feedback has been set out on an issue-by-issue basis. It is noted that many of these issues were also raised in the written submissions or during landowner engagement received during the formal consultation process in respect of the Preliminary Re-evaluation Report. As with the other sources of feedback outlined above, this feedback includes a number of issues which are not directly relevant to the Preliminary Re-evaluation Report, but which are of relevance for the specific project design and EIA stages in the project development process (e.g., ecology, landscape, agronomy etc.). A summary of the issues raised is set out in **Table 3**. The manner in which EirGrid and the Project Team has/will respond to these issues is outlined in **Section 4** of this Report.

**Table 3: Issues Raised During Other Engagement**

<b>Issue Reference</b>	<b>Issue</b>
I-1	Health
I-2	Ecology
I-3	Technology
I-4	Material Assets
I-5	Cultural Heritage
I-6	Landscape
I-7	Need
I-8	Compensation
I-9	Agriculture
I-10	Noise
I-11	Construction
I-12	Water
I-13	Geology

#### **1.5.4 Scope of the Responses**

In order to provide a clear and demonstrable link between feedback received during the consultation on the Preliminary Re-evaluation Report, and the substance and text of the Final Re-evaluation Report, the scope of this Report is confined primarily to matters concerning the scope and content of the Preliminary Re-evaluation Report.

Where there is a recommendation to alter, add or delete text of the Preliminary Re-evaluation Report in the Final Re-evaluation Report, this is indicated in this Report. Where feedback received relates to a subsequent stage of the project e.g. detailed line design or EIA, this is noted in the text.

For the avoidance of doubt, where a submission has resulted in amendments from the original content of the Preliminary Re-evaluation Report this is highlighted at the end of the response.

Other matters raised, and submissions made, outside of, or subsequent to, the consultation on the Preliminary Re-evaluation Report, but which have a bearing on the content of the Final Re-evaluation Report, have also fed into, and have been addressed in the Final Re-evaluation Report.

## 2 RESPONSES TO WRITTEN SUBMISSIONS AND PROPOSED AMENDMENTS ARISING

### 2.1 WRITTEN FEEDBACK

EirGrid and its consultants have sought to accurately record issues and concerns set out in the submissions, and to provide a comprehensive response to same. Each submission has been reviewed, and a general overview provided. The key points of each submission (primarily using direct quotes from the submission) are also set out and numbered.

These key points below are repeated under the heading **RESPONSE TO KEY POINTS** and **a specific response is provided for each point.**

In order to provide a comprehensive response to each submission, in the context of similar issues having arisen in different submissions, it is considered appropriate that there is some necessary level of repetition of text and response in the various responses set out below. Where a response is effectively identical to a previous response, reference is made to that previous response.

### 2.2 SUBMISSION FS-1:

**Overview:** This submission raises issues primarily in relation to the matter of over-grounding versus undergrounding transmission infrastructure. It is submitted by the observer that the proposal in its current overhead line (OHL) form is not acceptable to affected individuals and the wider community, having regard to matters such as evidence of superior technical advances and alternatives, commercial considerations, health related impacts and costs, landscape impact, property devaluation, impact on tourism, sporting activities and ecology and the implications for those whose income is reliant on such activities.

#### KEY POINTS OF THE SUBMISSION:

1. *“The project will not go ahead as planned overground and it will if it goes ahead at all be undergrounded in accordance with the wishes of the affected individuals and the wider community”*

*“...overwhelming evidence of not only the technical ability but also the commercial sense of undergrounding vis à vis counteracting all the negatives associated with pylons“*

EirGrid needs to *“face the reality that technology has not only moved on substantially, offering superior alternatives.”*

2. General concerns include *“children’s health and associated additional health costs, landscape mutilation and associated land and house property devaluation, animal and adult health and well being and the associated additional veterinary and medical bills, tourism loss, nature and wildlife, birdlife and fish life and associated loss of income from these activities, derived from people who previously would have enjoyed these pursuits”*

The submission also refers to, and encloses, a copy of the observation made by the author to An Bord Pleanála during the previous application. This separate submission sets out that *“In principle we have no objection to progress or the strengthening of the Electricity Grid if this is necessary but we strongly object to the project going ahead as presently planned by EirGrid”*. Additional specific references in this separate submission include:

- *“The negative consequences on the health of farmers and their families not to mention adjacent householders is huge from the hazardous EMF emissions from the pylons”.*
- *“...the threat to the well-being of livestock and nature from EMF....”.*
- *“The destruction of the lovely countryside and the devaluation of property as well as the negative impact on sporting activities adjacent to these structures will bring nothing but stress and unhappiness to the peoples of these areas”.*

#### **RESPONSE TO KEY POINTS:**

- 1: *“The project will not go ahead as planned overground and it will if it goes ahead at all be undergrounded in accordance with the wishes of the affected individuals and the wider community”.*

*“...overwhelming evidence of not only the technical ability but also the commercial sense of undergrounding vis à vis counteracting all the negatives associated with pylons“.*

EirGrid needs to *“face the reality that technology has not only moved on substantially, offering superior alternatives...”*.

**RESPONSE:** While an underground alternative may be the preference of many of the stakeholders who have engaged on the project to date; EirGrid has to be guided by its technical expertise and experience in this matter.



EirGrid, as part of this project re-evaluation process, carried out a review to ascertain whether there have been any significant advances in underground cable (UGC) technology in recent years that might alter its previous conclusions in this matter. This review also examined whether there has been any recent change in the practices of other transmission infrastructure developers regarding the use of UGC and OHL on their transmission networks. The review focused primarily on Europe, but also referenced developments in other parts of the world. The purpose of the review was to verify whether EirGrid's position on the use of UGC on the Irish transmission system, with particular reference to the use of 400 kV UGC as is proposed in respect of the North-South 400 kV Interconnection Development, remains valid. The outcome of the re-evaluation process is detailed in Chapter 3 of the Preliminary Re-evaluation Report and is summarised below:-

- No new information has come to EirGrid's attention which would alter its opinion that a 400 kV OHL is the best technical alternative solution for this development, and that it would be significantly less costly than an equivalent UGC alternative;
- It would not be in compliance with good utility practice. In this regard, the electricity utilities in Europe still consider the use of OHL for 400 kV circuits to be best practice; and
- EirGrid is obliged, under the terms of its licence as Transmission System Operator (TSO), to develop the transmission system using least cost, technically and environmentally acceptable solutions. Based on all of the above, it is clear that in order to comply with this requirement, EirGrid must propose for the North-South 400 kV Interconnection Development, a solution that is substantially comprised of 400 kV OHL.

EirGrid's findings in this matter, as set out in the Preliminary Re-evaluation Report, are updated in the Final Re-evaluation Report with reference, in particular, to the subsequent review of the International Expert Commission on the case for, and cost of, undergrounding all or part of the North-South Interconnector and the subsequent Government Policy Statement.

2. General concerns include *"children's health and associated additional health costs, landscape mutilation and associated land and house property devaluation, animal and adult health and well being and the associated additional veterinary and medical bills, tourism loss, nature and wildlife, birdlife and fish life and associated loss of income from these activities, derived from people who previously would have enjoyed these pursuits"*.

**RESPONSE:** Section 4 of this document sets out the manner in which EirGrid and the Project Team has/will respond to particular general issues raised (including health, landscape, property devaluation, tourism and ecology) as part of the progression towards a planning application.

## 2.3 SUBMISSION FS-2:

**Overview:** This submission which is “*only in relation to the portion of the line in the Cavan Monaghan Study Area and in particular Co. Monaghan*”, raises a number of issues specifically in relation to the methodology and findings of the Preliminary Re-evaluation Report.

### Key points of the submission:

1. The exact same route has been chosen as ‘preferred’ or ‘best fit’ “*without any of the information gleaned from that planning process taken into account with regard to amelioration. It is contended that any new issues or insights will continue to be disregarded*”.
2. “*Due to the simultaneous targeting of landowners along the historically preferred route the Preliminary Re-evaluation Report is already considered by EirGrid to be a final document*”.
3. “*..during the last planning process the new substation at Moyhill was seen as an integral part of the overall project and not just some add on. The Re-evaluation Report clearly states that the substation will be still required sometime in the future. In this respect the project has now been split resulting in a bad planning application*” .
4. “*With regard to the southern part of the line it is contended that the two study areas should have been unified into one study area from Woodland to the Border (Lemgare). Instead the two study areas have been re-branded as the Cavan Monaghan Study Area (CMSA) and the Meath Study Area (MSA) with the same consultants employed to carry out the re-evaluation*”.
5. “*The re-evaluation report is not a robust enough document as no re-evaluation or oversight has been undertaken by appropriate new consultants coming fresh to the project*”.
6. “*The Re-evaluation Report fails to explain how this reinforcement of the North East will take place given the constraints on the existing 275 kV Tandragee to Louth Interconnector*”
7. The Re-evaluation Report focuses on just two study areas - Ecology and Landscape on which to make a value judgement as to the ‘most preferred’ or ‘best fit’ route corridor. However:
  - i. In terms of ecology, it is contended in the submission “*that Route Option B clearly comes out as ‘most preferred’ or ‘best fit’*”; and
  - ii. In terms of landscape it is contended in the submission that “*the landscape rating should be equal or neutral with regard to Route Corridors A and B*”.

8. The submission concludes setting out *“Naturally, it goes without saying that whichever route emerges, it is contended that it is inappropriate and unsustainable development in the unique drumlin landscape through which it passes”*.

#### **RESPONSE TO KEY POINTS:**

1. The exact same route has been chosen as ‘preferred’ or ‘best fit’ *“without any of the information gleaned from that planning process taken into account with regard to amelioration. It is contended that any new issues or insights will continue to be disregarded”*.

**RESPONSE:** Given the extent of technical and environmental work that has occurred in respect of the proposed development over the last number of years, as well as the extent of public, landowner, and other consultation and engagement that has been undertaken in respect of the overall project, it is perhaps unsurprising that the previously proposed line route substantially comprises the indicative route as identified in the Preliminary Re-evaluation Report.

In this regard, EirGrid and its consultants have had regard to the considerable body of work previously undertaken in respect of that previous decision-making process, which includes technical, environmental, planning and other reports, the Environmental Impact Statement (and associated reports) and mapping prepared in respect of the previous proposal (which in itself was based upon, and made considerable reference to, other reports, documents and mapping). EirGrid has also carefully considered the considerable volume of written and oral submissions which were presented by or on behalf of prescribed bodies, other stakeholders, and the general public, during the previous application and which for information is now included as an Appendix to the Final Re-evaluation Report.

The re-evaluation process specifically considers those issues relevant for the purpose of the identification of the study area, constraints identification, comparative evaluation of route corridor options and identification of the preliminary indicative line route. The preliminary indicative line, as identified therefore takes account of relevant issues and information raised since 2009; and while the indicative line route identified is broadly similar to the previously proposed line route it incorporates important localised modifications as follows:-

- Modifications to the line route in order to take account of the construction and granting of permission for new houses occurring since the preparation and submission of the previous application in December 2009; and

- Modification arising as a result of the decision not to proceed with the intermediate substation (in the area to the west of Kingscourt) as part of the proposed application for approval of the Interconnection Development.

Next steps in the development of the North-South 400 kV Interconnection Development project will include the presentation of a more detailed preferred route alignment, following further technical and environmental analysis, and the consideration of all feedback arising during the public consultation process in respect of the Preliminary and Final Re-evaluation Report. This will be presented in a Preferred Project Solution Report, which will be published in due course, and will be the subject of a separate round of public consultation and engagement, in particular including landowner engagement.

The actual necessity or appropriateness of further potential modifications will ultimately be confirmed in the application for the North-South 400 kV Interconnection Development. As part of the preparation of the Environmental Impact Statement (EIS), EirGrid and its consultants will assess any suggested local amendments, to determine their potential environmental impact. Where these can be accommodated without creating additional environmental impact, they will be further considered in dialogue with the landowner concerned, and may ultimately comprise part of the proposal. Where it is assessed that they would create additional avoidable significant environmental impact, it is likely that it will not be possible to include them as part of the final application for planning approval.

In light of the above, it is submitted that the contention that *“new issues or insights will continue to be disregarded”* is incorrect.

2. *“Due to the simultaneous targeting of landowners along the historically preferred route the Preliminary Re-evaluation Report is already considered by EirGrid to be a final document”*.

**RESPONSE:** It is considered both reasonable and essential that the publication of the Preliminary Re-evaluation Report was followed by a process of initial landowner engagement. The purpose of this engagement was to obtain feedback from landowners regarding the conclusions of the Preliminary Re-evaluation Report, as well as to commence more detailed surveys and studies where possible, to inform the detailed line design.

EirGrid considers that the process of consultation, including landowner engagement, is an essential component of all projects developed by EirGrid and is enshrined within the Project Development and Consultation Roadmap that EirGrid adheres to in its projects. The overall process of re-evaluation of the North-South 400 kV Interconnection Development is clearly set out in the Preliminary Re-evaluation Report (and in the Final Re-evaluation Report).

The purpose of this report is therefore to capture, review and report on all matters raised in consultation, and to provide action points in respect of same, in particular demonstrating where issues and information raised during consultation in respect of the Preliminary Report has resulted in amendments to the Final Re-evaluation Report.

3. *“..during the last planning process the new substation at Moyhill was seen as an integral part of the overall project and not just some add on. The Re-evaluation Report clearly states that the substation will be still required sometime in the future. In this respect the project has now been split resulting in a bad planning application”.*

**RESPONSE:** EirGrid has outlined in the Preliminary Re-evaluation Report that an intermediate substation, in the vicinity of Kingscourt (not necessarily at Moyhill) will not be required for at least ten years. Accordingly, in the context of proper planning and sustainable development, it will not be included in the planning application for the Interconnection Development but will instead be the subject of its own application at a later date, when the need arises. It is incorrect to suggest that this will result *“in a bad planning application”* having regard to the facts that:

- EirGrid is preparing a detailed environmental impact statement to support the proposed application for approval for the North-South 400 kV Interconnection Development. In due course, when the need becomes more immediate, EirGrid will submit an application for statutory consent of the intermediate substation, including the undertaking of environmental assessment, and ensuring that the planned substation is presented and assessed appropriately;
- As set out in the Preliminary Re-evaluation Report, it is considered reasonable, from a transmission planning perspective, to give some consideration in this current proposal to the location of a substation, in anticipation that it will be required at some future point in time. A suitable location is in the vicinity of the point of intersection of the planned North-South (Turleenan-Woodland) 400 kV OHL and the existing Flagford-Louth 220 kV OHL, as this will minimise the additional lengths of 400 kV and/or 220 kV circuits that have to be constructed in the future in order to connect in the new substation; and
- The consideration of the requirement at a later date for such a substation is part of the Grid25 plans for undertaking the development of the network in order to support a long-term sustainable and reliable electricity supply. In this regard, EirGrid has published its Strategic Environmental Assessment (SEA) on the Grid25 Implementation Programme (IP) which anticipates and avoids adverse environmental impacts arising from the IP. At this time (and until such a time as an application is brought forward) it is considered that this would be the appropriate framework within which to consider and assess the environmental impacts of the future development of an intermediate substation.

Furthermore, given the possibility of this substation being proposed at some point in the future and the possibility that it may be in the vicinity of Kingscourt (but not necessarily at Moyhill) it is considered reasonable that an environmental impact assessment of the potential impacts arising from the possible future development of the intermediate substation should be included in the EIS as part of the consideration of potential impacts on the environment, including cumulative impacts, for the North-South Interconnector Development.

4. *“With regard to the southern part of the line it is contended that the two study areas should have been unified into one study area from Woodland to the Border (Lemgare). Instead the two study areas have been re-branded as the Cavan Monaghan Study Area (CMSA) and the Meath Study Area (MSA) with the same consultants employed to carry out the re-evaluation”.*

**RESPONSE:** The re-evaluation of the identification of the Project Study Area is set out in Chapter 4 of the Preliminary Re-evaluation Report including relevant consideration of the appropriate points of connection for a new North-South Interconnector and the background to the separate projects in the Republic of Ireland which became a single scheme.

EirGrid and its consultants have adopted an integrated approach to the consideration of the environment and technical constraints and in routing the transmission infrastructure within the overall larger study area south of the border. It has also rationalised the number of environmental specialists on the project team so that there is now only one specialist per environmental speciality responsible for the overall study area. This will ensure consistent methodologies for the identification of constraints, route corridors and line routes for both the CMSA and MSA.

It remains the view of EirGrid that it is appropriate to present the overall project in two portions, to facilitate review by the public and other parties of that portion of the scheme which is of most importance to them, rather than having to seek out this information as part of a much larger study area. This is consistent with how the project was previously presented to the public.

5. *“The re-evaluation report is not a robust enough document as no re-evaluation or oversight has been undertaken by appropriate new consultants coming fresh to the project”.*

**RESPONSE:** It is the case that the considerable body of work undertaken in respect of that previous application for approval for the North-South Interconnection Development (and the years of feasibility work leading up to it) remains entirely relevant to the re-evaluation, and ongoing development, of this project. Against this background, it is considered that the introduction of new consultants at this time would not be of any benefit to the project.

6. *“The Re-evaluation Report fails to explain how this reinforcement of the North East will take place given the constraints on the existing 275 kV Tandragee to Louth Interconnector”.*

**RESPONSE:** The observer notes correctly that the maximum permitted power transfer across the existing 275 kV Tandragee to Louth Interconnector is currently constrained to a level well below its actual power carrying capacity. This is as a direct consequence of the fact that there is currently only one high capacity North-South Interconnector. However the development of a second high capacity North-South Interconnector will effectively eliminate this constraint. It is in this circumstance, and as explained at Section 4.1 of the Preliminary Re-evaluation Report, that the proposed second North-South Interconnector, connecting between the existing Woodland Substation in County Meath and the proposed new substation in Turleenan in County Tyrone, will reinforce the transmission network in the North-East area. It will achieve this by effectively bypassing the existing high capacity transmission circuits running between the Greater Dublin Area and the transmission network in Northern Ireland (via Louth Substation), thus freeing up spare capacity on these circuits in the short and medium terms for the supply of electricity to local consumers.

The manner in which the proposed interconnector will reinforce the north-east area is further expanded in section 4.1 of the Final Re-evaluation Report.

7. *The Re-evaluation Report focuses on just two study areas - Ecology and Landscape on which to make a value judgement as to the ‘most preferred’ or ‘best fit’ route corridor. However:*
- i) *In terms of ecology, it is contended in the submission “that Route Option B clearly comes out as ‘most preferred’ or ‘best fit’”; and*
  - ii) *In terms of landscape it is contended in the submission that “the landscape rating should be equal or neutral with regard to Route Corridors A and B”.*

**RESPONSE:** A qualitative assessment using professional judgement based on engineering, environmental and other criteria is considered a reasonable approach in undertaking a comparative analysis between different route corridor options. This approach is frequently used in undertaking such analysis in respect of other linear projects by other infrastructure providers (e.g., roads, rail and pipelines). Such an approach identifies the different route options as being “More or “Less Preferred” and “Least Preferred” – essentially referring to the extent of environmental and other constraints associated with each option. This type of analysis allows comparisons to be made across a range of competing criteria, so that the project that has the lowest overall environmental impact is selected above projects that create a higher level of environmental impact. In this regard, it is important to understand that the term “preferred” is a

generally accepted industry term for infrastructure route selection by which is meant the “least constrained” or “best-fit” option.

Throughout the Preliminary Re-evaluation Report, the consultants have justified, with reference to their professional judgement, the route corridor that constitutes “*the most appropriate balance between the various technical, environmental and other evaluation criteria*”. In particular, they have considered the fact that while most potential impacts can be minimised by mitigation as part of the detailed design process, there will be some potentially significant impacts which cannot be entirely mitigated. In the Environmental Impact Assessment process these are referred to as residual impacts.

Whilst the corridor evaluation process had regard to a variety of different environmental and other criteria, there was found to be no significant difference in comparing route corridor options, for the purposes of the re-evaluation process, between a number of such criteria including water, geology settlements and infrastructure/utilities – hence no further consideration was given to them in the comparative evaluation. On the other hand, there was a discernible difference between the identified route corridor options in terms of ecology and visual impact which resulted in a greater focus on these criteria.

The Preliminary Re-evaluation Report concludes that, in ecological terms, Route Corridor Option B is more preferred than both Route Corridor Options A and C, but in relation to landscape, Route Corridor Option A is more preferred to Route Corridor Options B and C.

In balancing the ecological and landscape impacts against each other, in order to reach an overall conclusion, consideration needs to be given to the principles underlying environmental impact assessment.

The basic principles which underlie environmental assessment are impact avoidance, reduction and mitigation. In relation to an OHL, avoidance of visual impact in close proximity to the OHL is generally not possible but it is possible to reduce and mitigate visual impacts on the wider landscape by selecting a route corridor which creates the lowest level of visual impacts. In relation to ecology it is generally possible to avoid and reduce impacts by placing structures in particular locations which are less sensitive in ecological terms.

Having regard to the wider landscape setting within which route corridors should be considered, Route Corridor Option A and Route Corridor Option B have been identified as the route corridor options which reduce the visual impacts to the greatest extent possible, when compared to other route corridor options (notwithstanding the fact that all corridors create visual impacts).



In conclusion, greater clarity has been provided within the Final Re-evaluation Report regarding the evaluation process and outcome; and in particular the reasons as to why ecology and landscape became the focus when evaluating corridors.

8. The submission concludes setting out *“Naturally, it goes without saying that whichever route emerges, it is contended that it is inappropriate and unsustainable development in the unique drumlin landscape through which it passes”*.

**RESPONSE:** The landscape of Co. Monaghan forms part of a drumlin belt which runs across the country from Strangford Lough in Co. Down to Donegal and Clew Bay in Mayo. While topography is a prime contributor to landscape character in Monaghan, this character is also formed by agricultural and settlement patterns, trees and hedgerows, and existing built features such as roads, walls, buildings, communications and electricity infrastructure. Most of the roads, and therefore most opportunities for viewing the proposal, follow the lower ground within the undulating landscape. As a result, most views are relatively short distance and are enclosed by the drumlin topography. The proposed development will not affect the underlying topography of the landscape to the same extent as would, for example, a major road

The drumlin landscape results in enclosed or open views depending on the elevation of the viewpoint. Therefore, drumlin topography can either elevate or conceal individual towers in the landscape. The dynamic and complex nature of undulating countryside provides fore, middle and distant ground to a vista that helps to provide realistic scale and visual containment not available in open country. Where towers are located on higher ground, there is potential for visibility over a wider area. The line design has therefore aimed to keep the development to a low as possible elevation for as much as possible of the route. The linear nature of the development, the need to keep direction change to a minimum, constraints in the natural environment and the avoidance of dwellings mean it is not always possible to follow the lowest part of the landscape and some towers will inevitably be located at higher elevations.

## 2.4 SUBMISSION FS-3:

**Overview:** This submission raises concerns in respect of the health implications of overhead pylons. Other points include advising EirGrid of restricted access to lands because of the nature of the tillage cycle. The observer advises of unwillingness to deal with agents on behalf of EirGrid.

### Key points of the submission:

1. EirGrid wishes to proceed with *“a health-threatening scheme of overhead pylons against the clear wishes of those whose land you wish to cross”*.

2. *“..an antagonistic approach to landowners who wish to be cooperative”.*

*“I am not prepared to deal with an unknown third party on any issue to do with your project or access to lands”;* and

*“I am sure landowners would be willing to be cooperative if there was evidence that EirGrid listened to and acted upon the concerns. There has been little evidence of that.”*

3. *“Given the nature of the tillage cycle, this will mean that access to the property cannot be made in the growing season.”*

#### **RESPONSE TO KEY POINTS:**

1. EirGrid wishes to proceed with *“a health-threatening scheme of overhead pylons against the clear wishes of those whose land you wish to cross”.*

**RESPONSE:** EirGrid acknowledges that health is a concern for affected individuals (including landowners) and the public. **Section 4** of this document sets out the manner in which EirGrid and the Project Team has/will respond to particular general issues raised (including health) as part of the progression towards a planning application.

2. *“..an antagonistic approach to landowners who wish to be cooperative”.*

*“I am not prepared to deal with an unknown third party on any issue to do with your project or access to lands”;* and

*“I am sure landowners would be willing to be cooperative if there was evidence that EirGrid listened to and acted upon the concerns. There has been little evidence of that.”*

**RESPONSE:** Subsequent to receiving this particular submission, EirGrid met with this landowner and resolved his concerns expressed in relation to dealing with EirGrid and its representatives.

EirGrid acknowledges landowner concerns in respect of the project’s potential impact on specific landholdings, and it continues to pursue consensus in relation to the routing of the line, and in particular the location of towers, by proactively engaging with landowners to try and mitigate any potential impact on current farming practices and other land uses, while trying to balance other competing priorities such as environmental constraints and distance to dwellings. This will be considered during the next stage of the project – Route Confirmation - in the context of ongoing

technical and environmental studies and stakeholder (in particular landowner engagement) consultation.

3. *“Given the nature of the tillage cycle, this will mean that access to the property cannot be made in the growing season”.*

It should be noted that access to survey is not invasive and primarily involves walking the land. Through landowner site visits, EirGrid wishes to ascertain whether and how the proposed OHL might affect landowners, and how this might be best resolved to the greatest possible extent, for example agreeing tower positions with landowners where these are acceptable from a technical and environmental perspective.

## 2.5 SUBMISSION FS-4:

**Overview:** This submission raises issues relating to opportunities for partial undergrounding along the route alignment and modifications to the route alignment. The submission considers that partial undergrounding would have the effect of significantly dealing with concerns in respect of *“environmental impacts on their house, lands and family”*. It also identifies other potential modifications to the route alignment which would maximise the distance from the subject property.

### Key points of the submission:

1. *“The new proposal put forward by EirGrid shows no change at all in relation to the line”.*
2. *“Consideration of alternatives is ongoing ..... that it is possible to underground part of this line ...” and “ ... that it is accepted that such an underground section could be of the order of 10 kilometres”.*
3. *“The concerns that we have raised relate to the visual impact, the impact of the line would have on health and noise, the impact on our farming practice and general nuisance attached to a line of this size and scale in such close proximity to our house”. If the line was to go underground this would deal with these concerns”.*
4. *“If the option of an underground route for the line is not acceptable, then any overground line should proceed through [other specified] lands at the maximum distance possible from our property and from our dwelling house in particular”.*

**RESPONSE TO KEY POINTS:**

1. *“The new proposal put forward by EirGrid shows no change at all in relation to the line”.*

**RESPONSE:** As set out in FS-2 above (in response to point no.1), the Preliminary Re-evaluation Report is considered to clearly document the rationale for decisions taken which has resulted in largely the same route with some localised modifications being identified. Given the extent of technical and environmental work that has occurred in respect of the proposed development over the last number of years, as well as the extent of public, landowner, and other consultation and engagement that has been undertaken in respect of the overall project, it is perhaps unsurprising that the previously proposed line route substantially comprises the indicative route as identified in the Preliminary Re-evaluation Report. The purpose of this re-evaluation process is to ensure that there is an understanding of, and confidence in, EirGrid's conclusions, and that is why this process provides for significant public and stakeholder input as well as an opportunity to provide inputs and suggestions on the routing of the line.

However, it should be noted that the route identified in the Preliminary Re-evaluation Report (and in the Final Re-evaluation Report) comprises an indicative line route, and not the final designed or proposed route. The preferred line design will be detailed in a Preferred Project Solutions Report, which will be published in due course. There is still scope for landowners to influence the detailed route of the alignment.

Further potential localised modifications to the line route are matters which will be dealt with in consultation with the competent authorities, in discussions with landowners, and in reference to conclusions of ongoing studies. As part of the EIA process, and assuming appropriate and adequate access to lands, EirGrid will assess any suggested localised amendments to determine if there are any potential environmental impacts. Where these can be accommodated without creating additional environmental impacts they will be further considered. Where it is assessed that they would create additional avoidable significant environmental impacts it is unlikely that they will be capable of being further considered. All localised assessments will form part of the EIS.

2. *Consideration of alternatives is ongoing ..... that it is possible to underground part of this line ...” and “... that it is accepted that such an underground section could be of the order of 10 kilometres”.*

**RESPONSE:** One of the findings of the Preliminary Re-evaluation Report is that a hybrid 400 kV UGC/OHL circuit may be feasible, but only:

- If the length of UGC to be installed is relatively short;

- Where the cost of using the short length of UGC can be proven to be an environmentally advantageous and cost effective way of overcoming an environmental or technical constraint to the preferred OHL; and
- Where it can be confirmed that the use of UGC does not exceed the transmission system's capacity to accommodate such cables.

On the basis of updated environmental constraints and other information, EirGrid and its consultants consider that at the strategic level of the re-evaluation process, no material implications would warrant the use of UGC along any part of the identified indicative line route, other than that identified section within the area of Woodland Substation. Reference is made to page 131 of the Preliminary Re-evaluation Report which sets out:

*“At this stage in the process, EirGrid and its consultants are of the consideration that on the basis of the re-evaluation of updated environmental and other information, a viable and environmentally acceptable preliminary indicative line route for a 400 kV OHL exists.”*

EirGrid's findings in this matter, as set out in the Preliminary Re-evaluation Report, are addressed in the Final Re-evaluation Report in reference to the review of the International Expert Commission on the case for, and cost of, undergrounding all or part of the North-South Interconnector and the subsequent Government Policy Statement.

However, EirGrid acknowledges that there are landowner concerns in respect of the project's potential impact on specific landholdings. It will consider and assess all requests to modify the line route, in dialogue with directly affected landowners. This will include landholding-specific consideration of technical, environmental, cost and other criteria. This will be considered during the next stage of the project, rather than in this stage of strategic project re-evaluation, in the context of ongoing technical and environmental studies and consultation with competent authorities and landowners.

In conclusion therefore it remains EirGrid's position that there are no areas along the indicative line route that would warrant partial undergrounding (other than a short section within the confines of the existing Woodland Substation), including the section referenced in this submission. EirGrid will however investigate this option further as part of the consideration of alternatives to be addressed in the EIS which will accompany an application for planning approval for the North-South 400 kV Interconnection Development.

3. *“The concerns that we have raised relate to the visual impact, the impact of the line would have on health and noise, the impact on our farming practice and general nuisance attached to a line of this size and scale in such close proximity to our house. If the line was to go underground this would deal with our concerns”.*

**RESPONSE:** Section 4 of this document sets out the manner in which EirGrid and the Project Team has/will respond to particular general issues raised (landscape, health, noise and agronomy) as part of the progression towards a planning application.

4. *“If the option of an underground route for the line is not acceptable, then any overground line should proceed through [other specified] lands at the maximum distance possible from our property and from our dwelling house in particular”.*

**RESPONSE:** EirGrid’s policy for dealing with a request such as this is that it will be accommodated as long as it is technically feasible; does not result in an additional environmental impact; and the receiving adjacent landowner consents to the route modification, in full knowledge of the reason for said modification. This particular request is being dealt with in accordance with this policy and EirGrid is working with the landowner in question with a view to finding an acceptable solution.

## 2.6 SUBMISSION FS-5:

**Overview:** This submission by the National Roads Design Office notes that Route Corridor 3B in the Meath Study Area appears to cross the M3 Motorway near Grange. It notes that although this land is registered to Meath County Council, it contains the M3 Motorway which is run by EuroLink M3 under licence from the National Roads Authority (NRA). It requests that both EuroLink M3 and the NRA be consulted regarding any proposed works to be carried out on or over this land.

**RESPONSE:** EirGrid has and will continue to engage with EuroLink M3 and the NRA in developing the project, and preparation of the EIS, as well as prior to any proposed works being carried out on this land.

## 2.7 SUBMISSION FS-6:

**Overview:** This submission is from a landowner and raises issues relating to route alignment and choice of transmission technology.

### Key points of the submission:

1. Potential for an alternative route alignment; and
2. Outlines general support for an over head line option setting out “*I do not mind what route to take and object to underground because of cost and difficulty doing repairs*”.

### RESPONSE TO KEY POINTS:

1. Potential for an alternative route alignment.

**RESPONSE:** EirGrid acknowledges landowner issues in respect of the project’s potential impact on specific landholdings. It has established a series of protocols to consider and assess requests for local modification of the line route in dialogue with directly affected landowners. This will include landholding specific consideration of technical, environmental, cost and other criteria. This will be considered during the next stage of the project – Route Confirmation - in the context of on-the-ground surveys, ongoing studies and consultation with competent authorities and the individual landowners.

As part of the EIA process, EirGrid will assess any suggested alternative localised amendments to determine the potential environmental impacts. Where these can be accommodated without creating additional environmental impacts they will be further considered. Where it is assessed that they would create additional avoidable significant environmental impacts it is unlikely that they will be capable of further consideration. All localised assessments will form part of the EIS.

2. Outlines general support for an over head line option setting out “*I do not mind what route to take and object to underground because of cost and difficulty doing repairs*”.

EirGrid notes the landowner’s objection to the use of an underground cable solution for this project. The reasons stated are consistent with EirGrid’s position on this matter as set out in section 3.7 of the Preliminary Re-evaluation Report.

EirGrid’s updated consideration of the technical alternatives, as set out in the Preliminary Re-evaluation Report, are addressed in the Final Re-evaluation Report in reference to the review of

the International Expert Commission on the case for, and cost of, undergrounding all or part of the North-South Interconnector and the Government Policy Statement.

In conclusion, Chapter 3 of the Final Re-evaluation Report addresses the findings of the review of the International Expert Commission and the subsequent Government Policy Statement.

## 2.8 SUBMISSION FS-7:

**Overview:** This submission primarily raises issues relating to constraints and line route design.

### Key points of the submission:

1. What is the definition of ‘constraint’ and ‘sensitive receptor’?
2. Does EirGrid intend to apply the WHO guidelines regarding the minimum distance of 50 metres from residential properties along the entire length of the North-South Interconnector?
3. Why is our house and garden not regarded as a residential constraint?
4. Will the stringing of the free side of the existing Moneypoint to Woodland 400 kV line be included in the EIS”?

This submission also raises some site-specific queries which are not relevant to the re-evaluation process; these will be dealt with separately and directly with the individuals concerned.

### RESPONSE TO KEY POINTS:

1. What is the definition of ‘constraint’ and ‘sensitive receptor’?

**RESPONSE:** The terms ‘constraint’ and ‘sensitive receptor’ are common terms used in environmental impact assessment. However, in the interests of clarity an explanatory note is provided in the Final Re-evaluation Report in respect of these terms.

As a result explanatory text has been inserted into Chapter 5 of the Final Re-evaluation Report and the terms have been added to the Glossary of Terms, as follows:



*Receptor – any element of the environment which is subject to impacts*

*Constraint – any physical, environmental, topographical, socio-economic or other condition that may affect the location, development and other aspects of a proposal*

*Sensitivity – the potential of a receptor to be significantly changed.*

Furthermore, the corridor evaluation process has been further described in the Final Re-evaluation Report.

2. Does EirGrid intend to apply the WHO guidelines regarding the minimum distance of 50 metres from residential properties along the entire length of the North-South Interconnector?

**RESPONSE:** There are no World Health Organisation (WHO) guidelines which specify a minimum separation distance between high voltage overhead lines and residential properties. The WHO has however endorsed the guidelines produced by ICNIRP (International Commission on Non-Ionizing Radiation Protection).

Overhead transmission lines come in many shapes and sizes, with different voltage levels, different power carrying capacities and different configurations. The strength of an EMF emanating from a given overhead line is directly related to all of these variables. The ICNIRP guidelines recognise this fact and instead of specifying a minimum clearance distance the Guidelines specify 'Basic Restriction Levels' for the exposure of the general public to EMF. As the strength of the EMF is at its highest in the immediate vicinity of the live wire and decreases rapidly with growing distance from the overhead line a minimum clearance distance from an overhead line to a dwelling that satisfies the Guidelines can be derived for every type and size of overhead line.

The 1998 ICNIRP Guidelines have also been endorsed by the EU Commission and form the basis of EU Council Recommendation 1999/519/EC which describes the EU Guidelines. The Irish Government has adopted the EU Guidelines without variation. EirGrid designs and operates the Irish transmission network in accordance with the EU Guidelines. The North South 400 kV Interconnector will comply with the EU Guidelines and therefore it can be stated that it will comply with the derived minimum separation distance between existing dwellings and the live wires of the transmission line.

Additional information about electric and magnetic fields in Ireland can be found in "EMF and You", an EirGrid information brochure available from [www.eirgridprojects.com](http://www.eirgridprojects.com).

3. Why is our house and garden not regarded as a residential constraint?

**RESPONSE:** Residential properties are always considered a constraint for the purpose of proposed new transmission projects (including new line routes, new substation sites and the expansion of existing transmission infrastructure).

In the Preliminary Re-evaluation Report, one of the most significant constraints for corridor identification comprised settlements and areas of population density (refer to Map 6 (MSA / CMSA)). In respect of the identification of the indicative line route, dwellings are considered as a significant constraint. In this particular project, the Preliminary Report acknowledges that the extensive dispersed rural settlement (i.e. dwellings and ribbon development) within the Study Area, creates a difficult constraint that affects the positioning of the transmission line within any route corridor. However, it is also acknowledged that appropriate mitigation measures will need to be incorporated into the detailed design in order to address this.

EirGrid acknowledges landowner concerns in respect of the project's potential impact on specific landholdings and it continues to pursue consensus in relation to the routing of the line, and in particular the location of towers, by proactively engaging with landowners to try and mitigate any potential impact on current farming practices and other land uses, while trying to balance other competing priorities such as technical necessity, environmental constraints, and proximity to dwellings. This is not a matter for this re-evaluation process, but rather will be considered in detail during the next stage of the project, in the context of ongoing technical and environmental studies, and in consultation and engagement with competent authorities and landowners.

As part of the detailed line design and EIA process, EirGrid will assess any suggested or identified alternative local modifications, to determine resulting potential environmental impacts. Where these can be accommodated without creating additional environmental impacts they will be further considered. Where it is assessed that they would create additional avoidable significant environmental impacts it is unlikely that they will be capable of further consideration. All localised assessments will form part of the EIS.

4. Will the stringing of the free side of the existing Moneypoint to Woodland 400 kV line be included in the EIS?

**RESPONSE:** Yes, the EIS to accompany the new application for planning approval will clearly assess the full extent of the proposed development, including the stringing of the free side of the existing Moneypoint to Woodland 400 kV line, should this form part of the preferred project solution.

## 2.9 SUBMISSION FS-8:

**Overview:** This submission was made by the Executive of Monaghan County Council. It submits that its concerns remain broadly the same as those submitted to An Bord Pleanála in respect of the previous application for approval (both in writing and to the Oral Hearing). The specific point is:

*“It is understood that the route of the line through County Monaghan remains broadly as submitted to An Bord Pleanála in your earlier application to them, as considered at the oral hearing. As such the concerns previously expressed by Monaghan County Council, both in its written report and provided orally at the hearing remain.”*

These issues / concerns raised during the previous application for approval are summarised below and include:

1. National, regional and county development plans support the proposal in principle;
2. There is limited information in the EIS to justify the interconnector being taken through County Monaghan;
3. EIS fails to take account of the Monaghan Landscape Character Assessment and the impact of the siting of the towers in the various Landscape Character Types and Areas;
4. EIS has failed to justify the positioning of towers in particular locations in the landscape and has not given due regard to policies ENV 2 and ENV 3 and the County Development Plan (CDP);
5. The photomontages should also take account of not only the proposed line but also the potential for the line to deviate 40 metres either side of the proposed line;
6. No Zone of Visual Influence (ZVI) Assessment was submitted;
7. The EIS has failed to properly assess the visual impact of the proposed development upon the views from the scenic routes designated in the Monaghan County Development Plan 2007 – 2013 and the settings of lakes and their environs and any mitigation measures have not been included;
8. The EIS has failed to assess the impact of the proposed development upon trees and hedgerows along its route (specifically the low level of clearance);

9. The EIS failed to properly assess the impact of the proposed development upon biodiversity in the vicinity and mitigation measures have not been included. It is apparent from the lack of detail provided that no botanical surveys were undertaken;
10. Contour / topographical maps showing each tower location, its elevation and its relationship to surrounding area should be submitted;
11. Some of the details regarding status of sites has been incorrectly transcribed from the CDP to give a lower importance to sites;
12. Although the proposed development passes in proximity to a number of protected structures and historic gardens, it is considered that it will have limited impact upon the integrity or setting of these structures. A Zone of Visual Influence Assessment included with the EIS would be seminal in making a full assessment;
13. In order to determine the nature and scale of impacts on known archaeology, a photographic analysis of these visual impacts should be provided;
14. The EIS has failed to adequately assess the impact of the development as proposed and also with regard to micrositing of the proposed development upon existing and permitted development;
15. The EIS has inadequate detail in relation to routes used by construction traffic, facilitating works to allow construction and traffic access, traffic management and reinstatement works;
16. Landscape and the natural environment are important in respect of tourism. The EIS has failed to properly take into account the impact of the proposed development on tourism; and
17. Inadequate consideration has been given of the impact of the construction of the line anywhere within the corridor, particularly as a deviation of 40 metres in any direction could represent a significant change in both base level and height of the towers.

**RESPONSE TO KEY POINTS:**

1. *National, regional and county development plans support the proposal in principle.*

**RESPONSE:** The comments that national, regional and county development plan policies support the proposal in principle are noted and welcomed.

2. *There is limited information in the EIS to justify the interconnector being taken through County Monaghan.*

**RESPONSE:** Chapter 4 of the Preliminary Re-evaluation Report sets out the re-evaluation of the points of connection of the new North-South Interconnector to the existing transmission system and the background to the identification of the defined study area, which includes County Monaghan. The reasons for routing the proposed line through County Monaghan are clearly set out, along with alternative locations that were considered.

The identified preferred route corridor (approximately 1 km wide) and indicative line route within that corridor identified in the Preliminary Re-evaluation Report remains substantially as per the previous proposal. In reaching this conclusion, the re-evaluation process has not identified any issue which would require significant modification to that previously proposed alignment within County Monaghan. However, the overall re-evaluation process, including public and stakeholder consultation, is intended to identify any issues that might have been overlooked in the Preliminary Re-evaluation Report, and which would justify such modification of the alignment. In addition, the overall re-evaluation process will conclude with the identification of an indicative line route; this will be subject to detailed line design confirmation and environmental assessment, in dialogue with directly affected landowners and other stakeholders, which are likely to result in local modifications to the alignment in the final proposal.

In conclusion, Chapter 4 of the Final Re-evaluation Report has been reviewed; re-organised and additional graphics are now included in order to clarify the reasons why the interconnector passes through County Monaghan, as well as through the other counties.

3. *Points 3 – 17 (as identified above)*

**RESPONSE:** These points detail specific aspects of the EIS and suggest that the EIS has failed to adequately assess various aspects of the proposed development in areas such as landscape, ecology, cultural heritage, micro-siting and tower location, construction traffic and tourism.

All these comments are noted; it is considered that these are not matters for this re-evaluation process, but rather relate to the preparation of the proposed application for planning approval and the accompanying EIS. It is acknowledged that, in response to the feedback from Monaghan County Council, there may be a need for greater clarity in the particulars of the forthcoming application. This will be taken into consideration during the next stages of project development and application preparation, including the preparation of the EIS; EirGrid will seek to discuss such matters with the Executive of Monaghan County Council - in particular the presentation of EIS material will be discussed to ensure it is clear where and how all matters raised by Monaghan County Council are addressed.

## 2.10 SUBMISSION FS-9:

**Overview:** This submission by NEPP sets out summary feedback in respect of the Preliminary Re-evaluation Report.

**Key points of the submission:**

1. *“...refusal by EirGrid to objectively examine all practical and feasible options for implementing this Project, especially the publically acceptable option of undergrounding the transmission lines”.*
2. *“... failure by EirGrid to professionally address the inadequacies and deficiencies highlighted during the Oral Hearing in 2010. Specifically, the following issues have not been addressed, accepted or solved:*
  - i. *Project Splitting – that Woodland’s impacts and the cumulative impacts of the East-West and North-South interconnector Developments, have not been assessed.*
  - ii. *Substation siting*
  - iii. *Agriculture and farming impacts*
  - iv. *Landowner / house owner property devaluation impact*
  - v. *Landscape and Visual Amenity Issues*
  - vi. *Alternative technologies*
  - vii. *Public consultation*
  - viii. *Health and Safety concerns*
  - ix. *Noise Pollution Controls*
3. *“NEPPC notes the aggressive behaviour and misleading information being meted out to landowners on foot of this report”.*

**RESPONSE TO KEY POINTS:**

1. *“...refusal by EirGrid to objectively examine all practical and feasible options for implementing this Project, especially the publically acceptable option of undergrounding the transmission lines”.*

**RESPONSE:** While an underground alternative may be the preference of many of the stakeholders who have engaged on the project to date; EirGrid has to be guided by its technical expertise and experience in this matter. Refer to **Section 2.2**, FS-1 – point no. 1 which sets out EirGrid’s full response to this.

In conclusion, in Chapter 3 the Final Re-evaluation Report addresses the findings of the review of the International Expert Commission in respect of the Meath-Tyrone 400 kV Interconnection Development and the subsequent Government Policy Statement.

2. *“... failure by EirGrid to professionally address the inadequacies and deficiencies highlighted during the Oral Hearing in 2010.*

EirGrid does not accept the contention that alleged ‘*inadequacies and deficiencies*’ raised by the observer at the oral hearing in 2010 were not adequately addressed. The issues raised by the observer were addressed at that hearing by EirGrid. The specific issues raised in this latest submission are addressed below.

- 2(i) *Project Splitting – that Woodland’s impacts and the cumulative impacts of the East-West and North-South interconnector Developments, have not been assessed.*

As noted previously in **Section 2.3** (in response to FS-2, point no. 3) it is important that the full extent of any project is properly identified and assessed. The term ‘project splitting’ refers to a project being artificially broken up into a series of separate projects (and planning applications) to avoid triggering a requirement for environmental impact assessment, in particular.

EirGrid is undertaking a detailed environmental assessment to support the new application for planning approval for the North-South 400 kV Interconnection Development (to include works to the Woodland Substation); EirGrid also undertook environmental assessment to support the application for the East-West Interconnector (including works to the Woodland Substation). Accordingly, concerns relating to ‘project splitting’ are not considered relevant as the applications have been / will be accompanied by environmental assessment, which will include analysis of any and all cumulative impacts associated with the proposed North-South Interconnection Development.

2(ii) Issue - *Substation siting*

**RESPONSE:** As set out in Chapter 4 of the Preliminary Re-evaluation Report, EirGrid is now of the opinion that an intermediate substation in the vicinity of Kingscourt (not necessarily at Moyhill) is not now expected to be required within the next 10 years; and it is therefore not considered necessary or appropriate to include it in the new application for the proposed North-South 400 kV Interconnection Development.

However, given the possibility of this substation being proposed at some point in the future and the possibility that it may be in the vicinity of Kingscourt (but not necessarily at Moyhill) it is considered reasonable that an environmental impact assessment of the potential impacts arising from the possible future development of the intermediate substation should be included in the EIS as part of the consideration of potential impacts on the environment, including cumulative impacts, for the North-South Interconnection Development.

(2)(iii) – (ix) Issues as detailed above.

**RESPONSE:** These are matters which are not considered to be within the scope of this Re-evaluation process, but which are more pertinent to the project development process, including preparation of an EIS and the process of environmental impact assessment. In developing its proposal, EirGrid and its consultants will consider the proposed development in respect of all these environmental issues. **Section 4** of this document sets out the manner in which EirGrid and the Project Team has/will respond to particular general issues raised (including agronomy, landscape and health) as part of the progression towards a planning application.

3. *“NEPPC notes the aggressive behaviour and misleading information being meted out to landowners on foot of this report .....especially in relation to the statements by EirGrid and/or its agents related to pylon compensation costs and ESB/IFA code of practice.”*

**RESPONSE:** On foot of this feedback EirGrid has conducted a full internal audit of all its communications and landowner engagement activity, and is satisfied, in the absence of any details of an alleged incident, that no aggressive behaviour towards landowners by EirGrid or its agents has occurred.

In the event that a proposed transmission development receives planning approval and proceeds to construction any losses incurred by the landowner of lands on which the line is constructed will be compensated by means of a statutory compensation process. A landowner who is dissatisfied with the amount of compensation offered has the statutory right to have the compensation amount assessed by an independent arbitrator.



The 'ESB/IFA Code of Practice for Survey, Construction & Maintenance of Overhead Lines in Relation to the Rights of Landowners' is a publically available document. During engagement with landowners the existence of the ESB/IFA Code of Practice is brought to the attention of landowners by EirGrid and/or its agents. If the landowner requests a copy of the document one is provided.

## 2.11 SUBMISSION FS-10:

**Overview:** Submission by Sinn Fein, representing those communities in counties Meath, Cavan and Monaghan who “*are deeply concerned at the restated intent of EirGrid to force a 400 kV Interconnector across their lands and in close proximity to their homes, schools and places of work*”.

### Key points of the submission:

1. EirGrid is “*going through the motions*” embarking on “*this further so called public consultation exercise given the extent of communication of their total opposition to the pylon supported overhead powerline plans of EirGrid and NIE by individuals, families, groups and whole communities along the entire length of the proposed route...*”.
2. Having regard to all engagements, objections, submissions and presentations to the Oral Hearing (in respect of the previous application) that it is clear that “*communities will only give their support to the interconnector if it is proceeded with by way of underground cabling*”.
3. “*What plans have the Company to compensate the many individuals and community groups left significantly out of pocket for their efforts to inform the process*” as a result of the collapse of the 2010 Oral Hearing; and
4. Other considerations framing the opposition to the overhead option include health, the environment, agriculture, homes, communities and tourism considerations.

### RESPONSE TO KEY POINTS:

1. *EirGrid is “going through the motions” embarking on “this further so called public consultation exercise given the extent of communication of their total opposition to the pylon supported overhead powerline plans of EirGrid and NIE by individuals, families, groups and whole communities along the entire length of the proposed route...”.*

**RESPONSE:** EirGrid has been consulting and engaging on this project for the last number of years, and inputs from the public and other stakeholders have formed an important element of the project development to date. The Preliminary Re-evaluation Report is very clear as to how

and why decisions have been made and endorsed in shaping the proposed development. The suggestion that EirGrid is “*going through the motions*” is incorrect. Specific reference is made to the following:

- The process of public and stakeholder consultation is intended to provide stakeholders with an opportunity to provide their feedback on the content and findings of the Preliminary Re-evaluation Report and to identify any additional issues or insights that should be considered as part of the re-evaluation process which would justify a modification to the overall planned project, or indicative route alignment; and
- EirGrid continues to pursue consensus in relation to the routing of the line, and in particular the specific location of towers, by proactively engaging with landowners to try and mitigate any potential impact on current farming practices and other land uses, while trying to balance other competing priorities such as environmental constraints and distance to dwellings.

It is the case that, due to the technical nature of a project, or competing environmental priorities, it may not always be possible to accommodate suggestions by stakeholders regarding the nature and routing of a transmission line. In this instance, the indicative route identified by EirGrid in the Preliminary Re-evaluation Report (and as now presented in the Final Re-evaluation Report), is considered to ensure the most appropriate balance between often competing technical, environmental, community and other criteria.

2. *Having regard to all engagements, objections, submissions and presentations to the Oral Hearing (in respect of the previous application) that it is clear that “communities will only give their support to the interconnector if it is proceeded with by way of underground cabling”.*

**RESPONSE:** While an underground alternative may be the preference of many of the stakeholders who have engaged on the project to date; EirGrid has to be guided by its technical expertise and experience in this matter. EirGrid’s full response to this issue is set out in **Section 2.2** of this Report, in response to FS-1, point no.1.

In conclusion, Chapter 3 of the Final Re-evaluation Report addresses this issue in the context of addressing the findings of the **review of the International Expert Commission and the subsequent Irish Government Policy Statement**.

3. “What plans have the Company to compensate the many individuals and community groups left significantly out of pocket for their efforts to inform the process” as a result of the collapse of the last Oral Hearing”.

**RESPONSE:** The issue of compensation is not considered to comprise a matter for the re-evaluation process in respect of the North-South 400 kV Interconnection Development project.

4. Other considerations framing the opposition to the overhead option include health, the environment, agriculture, homes, communities and tourism considerations.

**RESPONSE:** **Section 4** of this document sets out the manner in which EirGrid and the Project Team has/will respond to particular general issues raised (including health, environmental, agronomy, property, community and tourism related issues) as part of the progression towards a planning application.

## 2.12 SUBMISSION FS-11:

**Overview:** This submission by Monaghan Anti-Pylon Committee considers that the Preliminary Re-evaluation Report makes no new findings, new issues or new insights. It considers that previous submissions to An Bord Pleanála, including at the Oral Hearing, by and on behalf of Monaghan Anti-Pylon Committee, community groups, landowners and individuals from County Monaghan are still valid.

### Key points of the submission:

1. *“The Anti-Pylon Committee have duly considered the Re-Evaluation Report and note that there are no new findings, new issues or new insights arising in the report”.*
2. *“... we feel that all previous written submissions to An Bord Pleanála and oral hearing evidence given at the Oral Hearing by and on behalf of the Committee, community groups, landowners and individuals, from County Monaghan are still valid”.*

### RESPONSE TO KEY POINTS:

1. *“The Anti-Pylon Committee have duly considered the Re-Evaluation Report and note that there are no new findings, new issues or new insights arising in the report”.*

**RESPONSE:** The Preliminary Re-evaluation Report is considered to clearly document the rationale for decisions taken which have resulted in largely the same route with some localised modifications being identified. Refer to **Section 2.3**, FS-2 - Point no. 1 and **Section 2.5**, FS-4 – Point no. 1 which provides EirGrid's full response to this issue.

2. *“... we feel that all previous written submissions to An Bord Pleanála and oral hearing evidence given at the Oral Hearing by and on behalf of the Committee, community groups, landowners and individuals, from County Monaghan are still valid”.*

**RESPONSE:** EirGrid agrees that it is still valid to consider the submissions made to the Board in respect of the previous application for planning approval. As previously noted (also in **Section 2.3** in response to FS-2 – Point no.1) concerns and issues have been taken on board by EirGrid and its consultants arising from the Oral Hearing, and indeed the overall application in respect of the previous proposal.

### 2.13 SUBMISSION FS-12:

**Overview:** This submission by AMP/SAFE queries the authority of EirGrid to transmit electricity over private property. The key point to the submission is that *“It would appear that EirGrid do not have authority to transmit electricity over private property”.*

**RESPONSE:** EirGrid is the licensed Transmission System Operator (TSO) for Ireland pursuant to Section 14 of the Electricity Regulation Act 1999. Pursuant to Regulation 8(1)(a) the TSO has power to operate and ensure the maintenance of and, if necessary, develop a safe, secure, reliable, economical and efficient electricity transmission system.

### 2.14 SUBMISSION FS-13:

**Overview:** This submission seeks clarification of the information and facts that should be made available to both the public and impacted landowners.

#### Key points of the submission:

1. *“Clarification in writing is required on the route selection methods employed by EirGrid in selecting the route section from Derryhallagh to Lemgare. The normal expectation would be that the shortest distance between two points is a straight line, however, in this instance there is a substantial kink or elbow formation which is out of context with the overall Northerly direction of the line. This kink has added in excess of 2.5 km to the length of the route requiring approximately seven more towers.”*
2. Page 10 of EirGrid’s Preliminary Re-evaluation Report sets out ‘the route of the Interconnection Development shall be the shortest route that is technically and environmentally appropriate.’ *“The route passes over Cashel Bog, close to Tassan Lough NHA and Lemgare Rocks NHA”.*

3. *“I disagree with the assertion that the height in Lemgare is lower than Crossmore”.*
4. *“It is important to ensure full disclosure of all information and facts to both the public and landowners on why the line is going through their particular neighbourhood”.*

**RESPONSE TO KEY POINTS:**

- 1 *“Clarification in writing is required on the route selection methods employed by EirGrid in selecting the route section from Derryhallagh to Lemgare. The normal expectation would be that the shortest distance between two points is a straight line, however, in this instance there is a substantial kink or elbow formation which is out of context with the overall Northerly direction of the line. This kink has added in excess of 2.5 km to the length of the route requiring approximately seven more towers.”*

**RESPONSE:** The route selection process in this area has had specific regard to balancing competing environmental and technical factors. Generally, in routing overhead lines, the key considerations are as follows:

- Distance to densely populated places;
- Visual impact;
- Protected or restricted ecological areas;
- Environmental impact;
- Technical standards;
- Topography;
- Cultural heritage;
- Road access;
- Geology and soils;
- Crossing with existing infrastructure; and
- Land use.

In terms of line routing, it is always an objective to achieve a relatively straight line between two defined connection points, taking into consideration environmental constraints and achieving the necessary technical standards. However, as a result of having to balance all the competing factors, OHLs often have to deviate from a straight line.

In this particular instance, the routing of the OHL in the area referred to in the submission is primarily designed to avoid the site identified as being the focal point of the Battle of Clontibret

(i.e. the area around where the monument/amenity area in Clontibret is situated). Whilst the battle site area is not defined in the County Development Plan or in historical publications, there is an amenity area at the crossroads west of Clontibret which provides a monument to the battle site and identifies this area as part of the site. The consequence of avoiding this historic site and associated public amenity area (which is considered an appropriate form of mitigation from an amenity and cultural heritage perspective) is the requirement for additional towers and a longer distance (i.e., the 'kink' rather than a straight line at this area of the route).

In terms of minimising potential impacts, in particular those associated with cultural heritage, the route section from Derryhallagh to Lemgare achieves this.

2. Page 10 of EirGrid's Preliminary Re-evaluation Report sets out *"The route of the Interconnection Development shall be the shortest route that is technically and environmentally appropriate. The route passes over Cashel Bog, close to Tassan Lough NHA and Lemgare Rocks NHA"*.

**RESPONSE:** The key considerations when selecting an overhead line route are set out previously in point 1. Having regard to the balancing of all of the competing considerations, it is considered that the shortest route that is technically and environmentally appropriate is identified in the Preliminary Re-evaluation Report.

The specific locations referred to above are being considered in relation to the routing of the line, and in particular the location of towers, during the next stage of the project, and in the context of on-going technical and environmental studies.

3. *"I disagree with the assertion that the height in Lemgare is lower than Crossmore"*.

**RESPONSE:** When considered in the wider landscape context, the topography in the Lemgare and Crossmore areas appears to be similar in terms of elevation; however there are subtle differences when considered in a localised context and having regard to the routing criteria detailed in point 1 above.

Routing the OHL through Lemgare rather than Crossmore takes advantage of an area of lower ground along the Northern Ireland border between the townland of Lemgare and Coolartagh, thereby reducing visibility against the skyline. Having regard to the routing criteria detailed in point 1, if the OHL is routed through Crossmore it would be necessary to traverse an area of higher ground for a longer distance, thereby increasing its visibility against the skyline.

In summary, the route section from Derryhallagh to Lemgare is considered to minimise potential visual impacts by taking advantage of lower localised topography.

4. *“It is important to ensure full disclosure of all information and facts to both the public and landowners on why the line is going through their particular neighbourhood”*

**RESPONSE:** EirGrid agrees. Indeed, the purpose of this re-evaluation process is to ensure that there is an understanding of, and confidence in, EirGrid's conclusions, and that is why this process provides for significant public and stakeholder input as well as an opportunity to provide inputs and suggestions on the routing of the line.

## 2.15 SUBMISSION FS-14:

**Overview:** This submission considers that EirGrid still have not gone far enough on the option to underground the proposal. It also raises concerns about a potential health hazard associated with overhead lines.

### Key points of the submission:

1. *“We welcome that EirGrid have considered the public's opinion in this matter, they still have not gone far enough on the underground option”.*
2. *“Living 80 metres from proposed overhead line would be a major health hazard...”.*

The submission concludes *“We are not against progress, but we will continue to support NEPP, on the underground option”.*

### RESPONSE TO KEY POINTS:

1. *“Living 80 metres from proposed overhead line would be a major health hazard as results of all studies done by NEPP show”.*

**RESPONSE:** EirGrid acknowledges the concerns that residents, living in proximity to the proposed overhead line, may have regarding the perception of negative health effects arising from human exposure to EMF. EirGrid's expert advice is that the 'studies' in question refer to a number of epidemiological studies that showed a weak link between certain cancers and EMF. The significance of these studies must however be understood in their proper context. Epidemiological studies with such weak statistical associations do not by their very nature provide proof of a real risk. All they can do is provide scientists with guidance on where they should direct their research.

Based on the findings of these epidemiological studies, extensive scientific research has been, and continues to be, carried out across the world in laboratories and in controlled experiments on live animals. Authoritative bodies such as the World Health Organisation, ICNIRP (International Commission on Non-Ionizing Radiation Protection) and the European Commission have reviewed the findings of this body of research and concluded that a link between the levels of EMF that would typically be emitted by an electricity transmission installation and negative health effects in humans and animals has not been established.

In addition the research has not been able to provide a biological explanation or identify a mechanism for how exposure to these low levels of EMF could cause damage to a living cell. Based on an analysis of this body of research the Chief Scientific Adviser to the Irish Government in his position paper “A Review of Recent Investigations into the Possible Health Effects of Exposure to Electromagnetic Fields (EMF) from Power Lines” (July 2010) concluded that it “is simply not possible for the level of energies associated with power lines to cause cancer”.

EirGrid designs and operates the transmission network in accordance with all relevant health and safety guidelines. Based on all of the foregoing EirGrid can state with confidence that EMF from the proposed overhead line will not pose a health risk to the residents of existing dwellings in its proximity or to the wider community.

Further elaboration on this issue can be found at Section 3.5 of this document and **Section 4** of this document sets out the manner in which EirGrid and the Project Team has/will respond to particular general issues raised (including health) as part of the progression towards a planning application.

Additional information about electric and magnetic fields in Ireland can be found in “EMF and You”, an EirGrid information brochure available from [www.eirgridprojects.com](http://www.eirgridprojects.com).

2. *“We welcome that EirGrid have considered the public’s opinion in this matter, they still have not gone far enough on the underground option”*

**RESPONSE:** Refer to **Section 2.2** and the response to FS-1 - Point no. 1 which addresses EirGrid’s response to the underground alternative.

In conclusion, Chapter 3 of the Final Re-evaluation Report addresses this issue in the context of addressing the findings of the review of the International Expert Commission.



## 2.16 SUBMISSION FS-15:

**Overview:** This submission seeks clarity on the relationship between the proposed Interconnection Development, and the Government’s strategic transmission infrastructure plans and wind development proposals and how they connect to the grid.

### Key points of the submission:

1. *“... the interconnector is only part of Government plans which also include plans to install a total of 5,000 kilometres of cabling and 6,000 Mega watts of wind farms. Therefore the interconnector’s stated purpose is to interlink Northern Ireland’s electricity grid with that of the Republic’s”.*

*“Without knowing the stated aims and total plans I will be unable to make meaningful submissions to the interconnector planning application”.*

2. *“I would like to know how the construction of the interconnector will impact on the wind development with regard to power lines from these wind farms to the point of connection to the grid. The planning application [for the windfarm] does not explain how the said windfarm [Corrinshigo/Raragh] will be connected to the Grid system or the direction that wind will take”.*
3. The submission concludes *“I would ask that you engage with me on this and provide all relevant information. Aarhus convention refers”.*

### RESPONSE TO KEY POINTS:

1. *“... the interconnector is only part of Government plans which also include plans to install a total of 5,000 kilometres of cabling and 6,000 Mega watts of wind farms. Therefore the interconnector’s stated purpose is to interlink Northern Ireland’s electricity grid with that of the Republic’s”.*

*“Without knowing the stated aims and total plans I will be unable to make meaningful submissions to the interconnector planning application”.*

**RESPONSE:** Chapter 2 of the Preliminary Re-evaluation Report records National policy that an additional high capacity electricity interconnector be established between the Republic of Ireland and Northern Ireland. This policy is specifically referenced in a number of policy documents as set out in the Report. The future application for approval of the proposed North-South 400 kV Interconnection Development will include a consideration of the relevant policy context for the development.

2. *"I would like to know how the construction of the interconnector will impact on the wind development with regard to power lines from these wind farms to the point of connection to the grid. The planning application [for the windfarm] does not explain how the said windfarm [Corrinshigo/Raragh] will be connected to the Grid system or the direction that wind will take"*

**RESPONSE:** The Interconnection Development provides for the strategic transmission exchange of power flows over a large area of the island, and this will support the development of renewable power generation, primarily by providing increased capacity for transmission of renewable generation onto the grid. Wind farms primarily connect into the grid network at substation nodes – either existing or proposed. This occurs by way of connection agreements between EirGrid and the developer, which are outside the scope of this proposed development. The specific connection requirements for the Corrinshigo/Raragh windfarm will be to the distribution system and not the transmission system. Therefore EirGrid has no involvement and details of its connection are a matter for ESB Networks. It is also not of relevance for the North-South Interconnector. There are no windfarms connected to the existing interconnector and there are no proposals for connecting windfarms directly to the proposed new North-South Interconnector.

3. *"I would ask that you engage with me on this and provide all relevant information. Aarhus convention refers".*

**RESPONSE:** All interested parties were invited, and continue to be invited, to participate in the consultation processes associated with this proposed Development. EirGrid is always willing to facilitate any engagement with the general public, landowners and all other stakeholders in respect of this, and all its projects, and will certainly accede to the request in this submission for continued engagement in respect of the proposed development.

The Aarhus Convention requires that the *"public concerned shall be informed, either by public notice or individually as appropriate, early in an environmental decision-making procedure, and in an adequate, timely and effective manner..."* and *"The public participation procedures shall include reasonable time-frames for the different phases, allowing sufficient time for informing the public in accordance with paragraph 2 (The opportunities for the public to participate) above and for the public to prepare and participate effectively during the environmental decision-making."*

Since the public launch of the project in October 2007, a lo-call phone line, email service, and postal service has been available to answer any questions or discuss concerns with the members of the public. This allows for optimum public participation, as addressed under the Convention. Moreover, there has been a statutory consultation process held in respect of the first application for approval and a subsequent consultation process in relation to the Preliminary Re-evaluation Report.

Furthermore there will be additional consultation opportunities in advance of the submission of the application for statutory approval to An Bord Pleanála.

## 2.17 SUBMISSION FS-16:

**Overview:** This submission by the Doohamlet District Community Development Association concludes that no changes are proposed to the route alignment that would address the concerns raised by the Association previously during the 2009/2010 application for approval (both written and oral). It also raises concerns in relation to the methodology for corridor evaluation used in the re-evaluation process.

### Key points of the submission:

1. *“The Re-evaluation Report does not allay any fears members of our community have in terms of the health implications, visual impact, impact on sustainable development and tourism development in our area, devaluation of property, the environmental impact, and impact on traffic and road safety in our locality”.*
2. *“We note that further ecological studies have confirmed the importance of our locality for whooper swans and ..... yet the re-evaluation report gives no details as to how this species will be protected from the proposed development”.*  
  
*“... we believe that mitigation will include bird flight diverters which will be fitted to the power lines and will make the powerlines more intrusive in our landscape. We believe details of these measures should be included in any proposals to allow local people to make an informed decision in relation to the impact of the proposed development on our area”.*
3. *“The fact that there are existing OH cables in the area does not justify the installation of new overhead cables”.*
4. *“...although views in our area are not identified in the County Development Plan, it is not then appropriate or justified to run overhead cables through that landscape, particularly along the elevated sections of the landscape where pylons are proposed on top of drumlins”.*
5. *“Para 7.3.2 [of the Re-evaluation Report] comparatively assesses route options with respect to impact on landscape. It states “Route Corridor Option A – is the second longest route. It will have least visibility as it is located on less elevated underlying topography than Route Corridor Option B”. We struggle to understand the meaning of this statement, as while the “underlying” topography of Option A may be lower lying, there are locations where the proposed pylons are greatly elevated, particularly along the proposed route west of our village” .*

*“Further clarification and illustrated analysis is required in relation to the comparative route assessment and the selection of the preferred route in terms of landscape impacts”.*

*“The DDCDA completely disagrees with an approach “based on professional experience and expertise” and without any quantitative or weighting system to route comparison, as there is no transparency to allow thirds parties review the final decision. Furthermore, it is not practical to consider all criteria examined as having the same importance, as some elements result in temporary impacts during the construction and reinstatement process, while others result in permanent and ongoing impacts which will not be mitigated against”.*

*“We do not believe the comparative corridor evaluation is a robust or detailed enough analysis of all the issues and we [do] not believe the stated preferred route in [is] conclusively the preferred route”.*

6. It is submitted that *“the Doohamlet District Community Development Association does not believe that EirGrid has illustrated that the proposed development is warranted in passing through our area and will not be detrimental to our area. We remain opposed to the proposed development of a 400 kV Interconnector through our locality”.*

#### **RESPONSE TO KEY POINTS:**

1. *“The Re-evaluation Report does not allay any fears members of our community have in terms of the health implications, visual impact, impact on sustainable development and tourism development in our area, devaluation of property, the environmental impact, and impact on traffic and road safety in our locality”.*

**RESPONSE:** Section 4 of this document sets out the manner in which EirGrid and the Project Team has/will respond to particular general issues raised (including health, landscape and material assets (e.g., property)) as part of the progression towards a planning application.

2. *“We note that further ecological studies have confirmed the importance of our locality for whooper swans and ..... yet the re-evaluation report gives no details as to how this species will be protected from the proposed development”.*

*“... we believe that mitigation will include bird flight diverters which will be fitted to the power lines and will make the powerlines more intrusive in our landscape. We believe details of these measures should be included in any proposals to allow local people to make an informed decision in relation to the impact of the proposed development on our area”.*

**RESPONSE:** The comments about further ecology studies and assertions that bird flight diverters may be fitted to the overhead line are also noted and will be taken into consideration during the preparation of the EIS that will accompany a future application for approval.

Where mitigation measures such as bird diverters are required, these will be developed in consultation with the National Parks and Wildlife Service (NPWS). Visual and any other impacts arising from bird flight diverters will be assessed in the EIS, thereby informing local people of the potential impacts.

3. *“The fact that there are existing OH cables in the area does not justify the installation of new overhead cables”.*

**RESPONSE:** The Preliminary Re-evaluation Report’s reference to the extent of existing OHL in the area was not intended as a justification for the installation of new lines; rather it is a statement of fact regarding the characteristics of the receiving environment within which the project will be located – new transmission infrastructure development must be considered in the context of the extent of existing transmission infrastructure, and other development, in an area.

4. *“...although views in our area are not identified in the County Development Plan, it is not then appropriate or justified to run overhead cables through that landscape, particularly along the elevated sections of the landscape where pylons are proposed on top of drumlins”*

*and*

5. *“Para 7.3.2 [of the Re-evaluation Report] comparatively assesses route options with respect to impact on landscape. It states “Route Corridor Option A – is the second longest route. It will have least visibility as it is located on less elevated underlying topography than Route Corridor Option B”. We struggle to understand the meaning of this statement, as while the “underlying” topography of Option A may be lower lying, there are locations where the proposed pylons are greatly elevated, particularly along the proposed route west of our village”.*

*“Further clarification and illustrated analysis is required in relation to the comparative route assessment and the selection of the preferred route in terms of landscape impacts”.*

*“The DDCDA completely disagrees with an approach “based on professional experience and expertise” and without any quantitative or weighting system to route comparison, as there is no transparency to allow thirds parties review the final decision. Furthermore, it is not practical to consider all criteria examined as having the same importance, as some elements result in temporary impacts during the construction and reinstatement process, while others result in permanent and ongoing impacts which will not be mitigated against” .*

*“We do not believe the comparative corridor evaluation is a robust or detailed enough analysis of all the issues and we [do] not believe the stated preferred route in [is] conclusively the preferred route”.*

**RESPONSE:** Line routing requires consideration of often competing constraints. In considering routing options around the Doohamlet area the following competing constraints were identified:

- A requirement to avoid the high ground in Cornahoe and Carrickinare;
- A requirement to avoid Ballintra church and Lough Major;
- requirement to avoid Cremartin Village;
- A requirement to avoid Doohamlet Village;
- A need to optimize length of line straights (i.e. straight sections of the line);
- A need to minimise the number of road crossings; and
- Finding the optimal crossing point of the existing Lisdrum - Louth 110 kV line.

In addition, it is noted that siting the line route in alternative locations in the area would raise other issues, for example:

- Siting the line route further west of Doohamlet would bring it closer to Ballintra Church and to Lough Major, as well as resulting in additional road crossings;
- Siting the line route in the area to the east of Doohamlet would bring it closer to both Castleblayney and Muckno Lake; and
- Siting the line to avoid drumlins would introduce a considerable number of additional angle structures in the area (hence the line route crosses a more limited number of drumlins e.g., Terrygreehan and Cornaure).

Having regard to the views expressed in the submission, the following clarifies the meaning of the statements in the Preliminary Re-evaluation Report:

- The topography must be considered in conjunction with the potential for impacting on sensitive receptors which are detailed above.
- Whilst the submission outlines specific elevated areas in the vicinity of Doohamlet village and states that the OHL will traverse these areas, it should be noted that these areas are considered to be less visually sensitive when compared to those areas which are designated in the County Development Plan (CDP).
- The CDP sets out what a Planning Authority considers to be its most significant visually sensitive areas at a County level. Views not included in the County Development Plan are thereby not afforded any special or protected status. However, while the locations referred

to in the submission were not included as a specific constraint in the Preliminary Re-evaluation Report, as they are not identified for protection in the CDP, the analysis of constraints for this project did incorporate a wider assessment of the landscape, and resulted in the most sensitive identified sensitive landscapes being avoided at corridor development and selection stages.

- The objective of OHL routing is to minimise visual impacts on those areas which are designated (i.e. considered by the CDP to be the most sensitive landscape areas) and Route Corridor A achieves this.

In light of the above, the identified indicative line route alignment is considered to comprise the most appropriate indicative alignment for the North-South 400 kV Interconnection Development. The subsequent process of route confirmation, including tower siting will be presented in a Preferred Project Solution Report, which will be published in due course, and will be the subject of a separate round of public consultation and engagement, in particular including landowner engagement.

In relation to the DDCDA disagreeing with the approach based on “*professional experience and expertise*” this has been previously addressed in detail under FS-2 Point 7.

In conclusion, greater clarity has been provided within the Final Re-evaluation Report as to the indicative line route presented in the Preliminary Re-evaluation Report.

The text relevant to paragraph 7.3.2 in the Preliminary Re-evaluation Report has been clarified in the final report regarding the evaluation process and outcome, and in particular the reasons as to why ecology and landscape became the focus when evaluating corridors. It is not considered that any amendments are required to the overall conclusions reached in the Preliminary Re-evaluation Report. The amended text is set out below:

*“The study area generally consists of a uniform drumlin landscape overlain on a very gradual north-south ridge. There are scenic views and landscapes at a number of locations within the study area, the majority of which are associated with lakes, with the most significant views being in and around the Lough Muckno Primary Amenity Area, and views of Lough Egish from an upland area to the north-east. Additionally, there are views from upland areas including Lough an Lea Mountain, Mullyash Mountain and Kilkitt.*

- *Route Corridor Option A – Has the least potential to be visible and has the least potential for visibility from sensitive receptors, even though it passes close to two scenic routes near Lough Egish and Shantonagh Lough;*

- *Route Corridor Option B – is located along the most elevated underlying topography of the three routes and will cause the most widespread visibility especially from portions of the N2, though it is the shortest route; and*
- *Route Corridor Option C – passes closest to the most significant landscape resources – i.e. Lough Muckno and the outskirts of Castleblayney”.*

## 2.18 SUBMISSION FS-17:

**Overview:** This submission objects to the proposal due to its proximity to residential properties. Particular concerns raised in the submission relate to health (EMF), visual impact and devaluation of property. It is submitted that EirGrid has adopted an intransigent policy with regards to undergrounding cables and that it is normal policy in other countries.

### Key points of the submission:

1. *“The proposed power lines ... will be approximately 400 metres from our house and this is not acceptable for (a) health reasons, EMF and the studies outlining the dangerous health effects that have been conducted also (b) the visual impact that it will have on our home and (c) the devaluation of our property”.*
2. *“These disgraceful pylons can be seen from our property, they can and should be put underground”.*

*“EirGrid has adopted an intransigent policy with regards to under grounding these cables, yet in other countries it is normal policy”.*

*“The people in Meath, Cavan and Monaghan do not want these power lines over ground...”.*

### RESPONSE TO KEY POINTS:

1. *“The proposed power lines ... will be approximately 400 metres from our house and this is not acceptable for (a) health reasons, EMF and the studies outlining the dangerous health effects that have been conducted also (b) the visual impact that it will have on our home and (c) the devaluation of our property”.*

**RESPONSE:** EirGrid's acknowledges that these issues are important to affected individuals (including landowners) and the public. **Section 4** of this document sets out the manner in which EirGrid and the Project Team has/will respond to particular general issues raised (including EMF



and visual impact) as part of the progression towards a planning application. Also refer to response provided in respect of FS-7 (point no. 2).

2. *“These disgraceful pylons can be seen from our property, they can and should be put underground”.*

*“EirGrid has adopted an intransigent policy with regards to under grounding these cables, yet in other countries it is normal policy”.*

*“The people in Meath, Cavan and Monaghan do not want these power lines over ground...”.*

**RESPONSE:** Refer to **Section 2.2** and the response to FS-1, Point no. 1 which addresses EirGrid’s full response to the underground alternative.

Furthermore, the Final Re-evaluation Report addresses this issue in the context of addressing the findings of the review of the International Expert Commission, the Report of the Joint Oireachtas Committee and the subsequent Government Policy Statement, in respect of the Meath-Tyrone 400 kV Interconnection Development.

## **2.19 SUBMISSION FS-18:**

**Overview:** This submission includes a detailed critique of wind as a source of electrical power in Ireland and specifically argues that, while wind turbines provide a lot of energy, they provide very little power. It calls for a halt to further wind development pending an investigation by a panel comprising engineers, economists and experienced electrical distribution operatives.

### **Key points of the submission:**

1. *“The Aarhus Convention is .... binding on Ireland with regard to projects which impact on the environment. This is such a project and the terms of the convention must be compiled with.”*
2. *“There must be a study on the benefits of this project and alternatives must be specified ..... as the project is in part for the purpose of connecting windfarms, the expected contribution of them is relevant”.*
3. *“A major issue is whether this project is necessary ..... there are several power stations in the midlands, yet there is no major industrial base in these areas”.*

**RESPONSE TO KEY POINTS:**

1. *“The Aarhus Convention is .... binding on Ireland with regard to projects which impact on the environment. This is such a project and the terms of the convention must be complied with.”*

**RESPONSE:** EirGrid agrees. Refer to **Section 2.16** and the response to FS-15 - Point no. 3 which details EirGrid's response to matters relating to the Aarhus Convention.

2. *“There must be a study on the benefits of this project and alternatives must be specified ..... as the project is in part for the purpose of connecting windfarms, the expected contribution of them is relevant”.*

**RESPONSE:** A summary of the strategic need, rationale and justification for the project is included in Chapter 2 of the Preliminary Re-evaluation Report. It must be understood that, in proposing a second North-South Interconnector, EirGrid is acting in accordance with its statutory obligations in implementing Government policy.

As outlined by the regulators in their joint report on the case for a second North-South Interconnector in 2004, the need / justification for the project is based on a number of factors including economic, technical and key stakeholder objectives. There is also a wide range of benefits associated with the interconnector that will ultimately benefit consumers and result in domestic savings. These include how investment in electricity infrastructure can reduce congestion on the network, improve productivity rates, increase economic growth rates, reduce long term maintenance and outage costs and facilitate renewable investment.

It should also be noted that Chapter 3 of the Preliminary Re-evaluation Report deals with the alternative technologies considered for the implementation of the development.

Furthermore, Chapter 2 of the Final Re-evaluation Report provides an update on the need and benefits of the project and Chapter 3 of the same report provides an update on the alternatives considered. These will also be matters to be addressed as part of the EIS associated with the new application for approval.

3. *“A major issue is whether this project is necessary ..... there are several power stations in the midlands, yet there is no major industrial base in these areas”.*

**RESPONSE:** The need for the North-South Interconnector is set out in Chapter 2.0 of the Preliminary Re-evaluation Report. In this regard, the relevance of the reference to existing power stations in the Midlands is not clear.

### **3. RESPONSES TO LANDOWNER ENGAGEMENT AND PROPOSED AMENDMENTS ARISING**

#### **3.1 LANDOWNER FEEDBACK**

As set out in **Section 1.2**, a specific programme of landowner engagement occurred in the context of the Preliminary Re-evaluation Report in May and June 2011. Feedback from this engagement primarily focused on site specific issues, including the project's potential impact on specific landholdings. However, during a number of the discussions between landowners and EirGrid's landowner agents, a number of queries and issues were raised that relate to this process of project re-evaluation. These are responded to below.

#### **3.2 Issue 1 - Is there an actual need for the project given the economic downturn?**

**RESPONSE:**

The strategic 'all island' need for a second high capacity North-South 400 kV Interconnector is outlined in Chapter 2 of the Preliminary Re-evaluation Report. The Report confirms that the original justification for the second North-South 400 kV Interconnector was not based on forecasted growth in electricity consumption, which it is acknowledged has declined for the immediate short-term. Instead it was, and remains, driven by Government policy and certain EU Directives to facilitate strategic medium and longer-term growth. In addition, it must be understood that a relatively long time period is required to construct such transmission infrastructure – the envisaged timeframe for eventual operation of the proposed development is well beyond the considered period of short-term economic downturn. The imperative need to plan and construct the North-South 400 kV Interconnection Development to meet forecasted strategic need is immediate.

Chapter 2 of the Final Re-evaluation Report updates the strategic need, rationale, justification for and benefit of the proposed North-South 400 kV Interconnection Development.

### 3.3 Issue 2 - Could it run along a disused railway line

#### RESPONSE:

Both EirGrid and its environmental consultants recognise the merits of utilising shared infrastructure corridors for linear developments (such as roads, railways, canals, pipelines and power lines, etc.).

The possibility of locating the proposed OHL development alongside the route of an existing disused railway in the Study Area was considered. However, it was ruled out after detailed study because *inter alia* it would direct the transmission infrastructure development into areas of population settlement, in particular Navan Town, as well as a number of villages and settlements.

Furthermore, at the time there was interest in re-establishing a rail link from Dublin to Navan and this was considered to most likely follow the route of the disused railway line from Clonsilla to Navan. It was an objective of the Meath County Development Plan 2007-2013 to keep “*the reservation of the former Dublin-Navan rail line free from development*” (Appendix A of the Meath County Development Plan 2007-2013).

The disused Navan railway line was subsequently formally selected as the preferred route alignment for the Dublin to Navan rail link by the Department of Transport. Phase I (providing a spur from the Maynooth line at Clonsilla to serve Dunboyne / Pace Interchange) was opened in September 2010. The preparation of the Railway Order application for Phase II (extending the service to Navan) was substantially completed but was deferred by the ‘Infrastructure and Capital Investment 2012 – 2016 Medium Term Exchequer Framework’ published in November 2011. Notwithstanding this, in the Meath County Development Plan 2013 – 2019, the National Transport Agency (NTA) “*indicated that it intends to formally request Meath County Council to include an objective in its Development Plan to protect and preserve the identified Navan Rail corridor once the NTA’s draft transport strategy is adopted. Pending this, the NTA have requested that Meath County Council continue to protect the corridor free from development that might compromise the future delivery of the rail scheme to Navan.*”

### 3.4 Issue 3 - Why is the substation at Moyhill no longer deemed necessary?

#### RESPONSE:

The rationale for why the substation in Moyhill is not included in the current application for planning approval is explained in Chapter 4 of the Preliminary Re-evaluation Report.

In summary, the report states that the 2009 application for approval proposed an intermediate substation (referred to in that application as Moyhill Substation) to reinforce the north-east for security of supply reasons. The need for this reinforcement was based on projected electricity demand in the region at the time. The latest revised demand forecasts published by EirGrid however indicate a longer and sustained depression of demand and a longer and slower recovery of growth than what

was previously estimated. As a result it is now envisaged that this intermediate substation will not be required within the next ten years. Consequently it would not be appropriate, in the context of proper planning and sustainable development, to include this element of the overall project in the new application for approval of the proposed North-South 400 kV Interconnection Development. At some stage thereafter electricity consumption in the north-east will however grow to a level that further reinforcement of the local transmission network will be required for security of supply reasons. At this point in time it is envisaged that such reinforcement will include the construction of the intermediate substation on the proposed Turleenan-Woodland 400 kV OHL that would connect it to the existing Flagford-Louth 220 kV OHL.

The fact that EirGrid is now of the opinion that the intermediate substation will not be required for at least ten years is significant as it is considered that it would not be appropriate, in the context of proper planning and sustainable development, for a developer to apply for planning permission for something which he does not expect to commence within ten years of receipt of planning approval. It is expected therefore that the intermediate substation will not be included in the planning application for the Interconnector but will instead be the subject of its own application (and environmental assessment) at a later date, when the need arises. However, given the possibility of this substation being proposed at some point in the future and the possibility that it may be in the vicinity of Kingscourt (but not necessarily at Moyhill) it is considered reasonable that an environmental impact assessment of the potential impacts arising from the possible future development of the intermediate substation should be included in the EIS as part of the consideration of potential impacts on the environment, including cumulative impacts, for the North-South Interconnector Development.

### **3.5 Issue 4 - Can EirGrid prove that no adverse health impacts will be associated with the project if it proceeds?**

#### **RESPONSE:**

EirGrid follows the guidance and instruction of international expertise and best practice. In this regard, an extensive worldwide risk assessment has been carried out by the World Health Organisation (WHO) and the International Commission on Non-Ionizing Radiation Protection (ICNIRP). The outcome of this risk assessment was the establishment, by ICNIRP in 1998 of *its 'Guidelines for limiting exposure to time-varying electric, magnetic and electromagnetic field (up to 300 GHz)'*. These Guidelines specify a 'reference level' of 100 microtesla for exposure of the general public to time-varying magnetic fields.

Both the WHO and the European Commission (EC) have endorsed these guidelines. The 1998 ICNIRP Guidelines form the basis of EU Council Recommendation 1999/510/EC which transcribes the EU Guidelines. The Irish Government has adopted the EU Guidelines without variation. EirGrid designs and operates the Irish Transmission network in accordance with the EU Guidelines. As with

all transmission infrastructure development in Ireland, the North-South 400 kV Interconnection Development will comply with these EU Guidelines.

In December 2010, ICNIRP published its new *Guidelines for Limiting Exposure to Time-Varying Electric and Magnetic Fields (1 – 100 kHz)*. A Fact Sheet summarising the new Guidelines can be accessed on the ICNIRP website at [www.icnirp.de](http://www.icnirp.de). In the new Guidelines the specified 'reference level' for exposure of the general public to time-varying magnetic fields has been increased to 200 microtesla. In other words, this threshold has been raised.

The EU Guidelines have not been amended in accordance with the new ICNIRP Guidelines so they still refer to the lower reference level of 100 microtesla. EirGrid must still comply with these as they remain the official Guidelines in Ireland. The North-South 400 kV Interconnection Development will be designed accordingly in reference to this more conservative reference level.

Based on an analysis of the body of research into this matter by the European Commission, the Chief Scientific Adviser to the Irish Government in his position paper "*A Review of Recent Investigations into the Possible Health Effects of Exposure to Electromagnetic Fields (EMF) from Power Lines*" (July 2010) concluded that it "*is simply not possible for the level of energies associated with power lines to cause cancer*".

Dr William H Bailey, PH.D in his evidence to the oral hearing in respect of the previous application for approval for the North-South 400 kV Interconnection Development advised that "*The project EMF exposures from the proposed line are of low intensity and below reference levels recommended by ICNIRP and adopted throughout the European Union to protect public health where the public spend significant time*". He concludes "*In conclusion, health and scientific agencies including the WHO and other agencies in Europe and Ireland have reviewed and evaluated research on the topic of EMF for the last 30 years. The conclusions of these assessments, which have followed a scientific process for the assessment of the research, are the same: the research does not support the conclusion that electric or magnetic fields are the cause of cancer, or any other long-term health effects.*"

In this regard, EirGrid will continue to follow the guidance and instruction of international expertise and best practice.

Additional information about electric and magnetic fields in Ireland can be found in "EMF and You", an EirGrid information brochure available from [www.eirgridprojects.com](http://www.eirgridprojects.com).

### **3.6 Issue 5 - Why can the line not be put underground?**

#### **RESPONSE:**

While an underground alternative may be the preference of many of the stakeholders who have engaged on the project to date; EirGrid has to be guided by its technical expertise and experience in this matter. Refer to **Section 2.2**, FS-1 – point no. 1 which sets out EirGrid’s full response to this.

Furthermore, the Final Re-evaluation Report considers this issue in the context of addressing the findings of the review of the International Expert Commission and subsequent Government Policy Statement in respect of the Meath-Tyrone 400 kV Interconnection Development and the Government Policy Statement.

### **3.7 Issue 6 - Impacts on air space including flying aircraft?**

#### **RESPONSE:**

There are two airfields in the study area: Trim Airfield located north-east of Trim, and Summerhill Airfield located north of Summerhill.

It is noted in respect of the previous application for approval for the North-South Interconnection Development, that the Irish Aviation Authority, in its submission to An Bord Pleanála, advised that it had “no observations on the proposals”.

However, during the re-evaluation process a modification was made to the indicative line route near Trim Airfield that will provide an even greater extent of clearance margin outside of the approach surface which will allow a greater level of flexibility later on when siting towers along this stretch of the route.

### **3.8 Issue 7- Concerns for impact on agriculture, with a request that in order to minimise crop damage construction should only occur “*after the harvest*”?**

#### **RESPONSE:**

ESB, as the statutory body responsible for constructing the proposed development, will take every care during construction of the line to ensure that interference with farmers’ operations and crop damage will be minimised or avoided altogether.

However, it must be acknowledged that ESB has considerable experience in the construction of electricity infrastructure over many decades, and fully understands the concerns of farmers and other directly affected landowners. All access for construction will be discussed and agreed with landowners in advance.

### **3.9 Issue 8 - Improvements on timing of landowner engagement, with a request for *“more time to review the information and literature”***

#### **RESPONSE:**

At all stages, EirGrid’s objective has been to provide an accessible, meaningful, and accountable consultation process. In order to make the process as meaningful as possible for landowners, landowner agents generally seek to call to landowners as soon as possible after letters are sent out, in order to ensure that directly affected landowners have received the information and to answer queries. This was the strategy for landowner engagement which occurred in respect of the Preliminary Re-evaluation Report.

Landowner agents are available at all stages of the consultation to meet with landowners, so if landowners are unprepared when the landowner agent calls, they are available to reschedule and meet with them at another agreed time.

Further landowner engagement will occur during the next stage – Route Confirmation – of project development, and landowners will continue to have an opportunity to influence the siting of the alignment of the proposed development.

### **3.10 Issue 9 – Is the line route as indicated fixed, or is there an element of flexibility at this stage?**

#### **RESPONSE:**

There remains flexibility at this stage in the line route design process in terms of the location of towers.

EirGrid acknowledges landowner concerns in respect of the project’s potential impact on specific landholdings; it continues to seek to allay concerns by reaching agreement with landowners on the specific location of towers, by seeking to proactively engage with landowners, to seek to site towers at locations which mitigate potential impacts on current farming practices and other land uses, while trying to balance other competing priorities such as environmental constraints and distance to dwellings.



As part of the detailed line design process, EirGrid will assess any suggested alternative localised amendments to determine the potential environmental impacts. Where these can be accommodated, without creating additional environmental impacts, they will be further considered. Where it is assessed that they would create additional avoidable significant environmental impacts, it is unlikely that they will be further considered or adopted. All localised assessments will form part of the ongoing EIA process.

## 4. RESPONSES TO OTHER ISSUES AND PROPOSED AMENDMENTS ARISING

### 4.1 OTHER ENGAGEMENT FEEDBACK

During, and subsequent to, the consultation on the Preliminary Re-evaluation Report, issues were raised by interested parties (collated from a variety of sources including written submissions, phone calls and meetings) which are not directly relevant to the Preliminary Re-evaluation Report. These issues however are of relevance to affected landowners and for the specific project design and Environmental Impact Assessment (EIA) stages in the project development process. A summary of the issues raised is set out in **Table 4.1**. The majority of these relate to the potential impact of the proposed development on environmental concerns.

**Table 4.1: Issues Raised During Other Engagement**

Issue Reference	Issue
I-1	Health
I-2	Ecology
I-3	Technology
I-4	Material Assets
I-5	Cultural Heritage
I-6	Landscape
I-7	Need
I-8	Compensation
I-9	Agriculture
I-10	Noise
I-11	Construction
I-12	Water
I-13	Geology

It is evident from Chapters 5 – 9 of the Final Re-evaluation Report that environmental assessment work has informed the decision making process of the development of the project from an early stage. Further consideration of environmental issues is also a fundamental requirement of EIA. In this

regard, in accordance with European Union and Irish national law, it is considered that the North-South 400 kV Interconnection Development will require an EIA to be undertaken and, hence, an Environmental Impact Statement (EIS) will be required as part of the application for approval to An Bord Pleanála.

The particular focus of the route confirmation stage is a preferred line design; and the preferred line design for the North-South 400 kV Interconnection Development will be published in due course in a Preferred Project Solutions Report. With the identification of a preferred line design, the Project will be developed to a level of detail considered sufficient to allow EirGrid and its consultants to consider where significant impacts are likely to arise and those matters to be addressed / included in the EIS. Consultation with both statutory and non-statutory consultees, as well as the public during the re-evaluation process, as well as knowledge gained from the previous planning application, means that this can be done with a reasonable degree of certainty.

The Preferred Project Solutions Report will therefore provide clarification on what EirGrid and its consultants determine to be the likely environment impacts arising from the proposed development. This will be set out under a series of environmental headings.

In respect to the other issues identified in **Table 4.1**, it is envisaged that the Preferred Project Solutions Report, will also provide a summary of the key construction works and activities associated with OHL in order to seek feedback from the public (and landowners in particular) on the proposed methodology, issues arising and construction related environmental considerations to be addressed in the EIS.

EirGrid would also refer interested parties to the Frequently Asked Questions (FAQ's) Sheets which have been developed for the North-South 400 kV Interconnection Development and which provide answers to a number of the most commonly asked questions on the Project.

## 5. CONCLUSIONS AND FEEDBACK

### 5.1 CONCLUSIONS

This report has set out a comprehensive summary of public, landowner and other stakeholder feedback arising from consultation that has occurred in respect of the Preliminary Re-evaluation Report (and other engagement) concerning the North-South 400 kV Interconnection Development. The Terms of Reference of this Report are set out at **Section 1.3** of this Report.

This Report sets out the response of EirGrid and its consultants to the consultation feedback received in respect of the Preliminary Re-Evaluation Report and otherwise. It also sets out any consequent amendments that have been made to the Final Re-evaluation Report. Of particular note, this Report has acknowledged that the International Expert Commission (IEC) review on a case for, and cost of, undergrounding all or part of the Meath-Tyrone 400 kV Interconnection Development, and the subsequent Joint Oireachtas Committee on Communications, Natural Resources and Agriculture report on its consideration of the IEC review, were both published outside the formal period of public consultation in respect of the Preliminary Re-evaluation Report. This is also the case with the subsequent Government Policy Statement on the Strategic Importance of Transmission and Other Energy Infrastructure. The findings of the IEC review, the subsequent JOC report, and the Government Policy Statement, have been considered in the Final Re-evaluation Report.

A number of issues were raised and documented in this report which it was considered should be better clarified in the Final Re-evaluation Report by means of additional or revised explanatory text; this has occurred in the final Report. However, no issues were identified that would alter the recommendation of EirGrid and its consultants that the identified Route Corridor Options A and 3B remain the least constrained (and thereby preferred) options, from a technical, environmental and community perspective, for the North-South 400 kV Interconnection Development.

In addition, no issues were identified that would significantly alter the general alignment of the indicative line route within Route Corridor Options A and 3B as identified in the Preliminary Re-evaluation Report. There have been a number of localised modifications to the indicative alignment, arising from *inter alia* the process of landowner engagement in respect of the Preliminary Re-evaluation Report.

It needs to be understood, however, that this is only an indicative alignment, for the purposes of ongoing technical and environmental analysis, and public and landowner consultation and engagement. Issues relating to the specific alignment of the planned circuit, including potential local modifications to the alignment, are more appropriately associated with, and thereby addressed by, the process of route confirmation and environmental impact assessment which will occur subsequent to this re-evaluation process, in consultation with landowners and other stakeholders.

The particular focus of this subsequent stage of route confirmation will comprise the preferred line design of the North-South 400 kV Interconnection Development which will be published in due course in a Preferred Project Solutions Report. As such, while these issues are of clear concern, both to EirGrid, directly affected landowners, and other parties, they are not matters that are most appropriately resolved in this re-evaluation process.

## **APPENDIX E**

### **CHAPTER 2 OF THE PREFERRED PROJECT SOLUTION REPORT**

## 2 PUBLIC AND STAKEHOLDER ENGAGEMENT

### 2.1 INTRODUCTION

The overarching purpose of stakeholder consultation and engagement is to ensure that all people who are likely to be affected by a project, potentially affected by a project, or consider themselves to be affected by a project have an opportunity to meaningfully feed into its development, as appropriate.

EirGrid is committed to open and transparent engagement with stakeholders on all of its infrastructure development projects, including the North-South 400 kV Interconnection Development. EirGrid welcomes feedback from interested parties on any aspect of the project and all submissions received are recorded and considered by the project team.

Following the withdrawal of the previous application for approval in respect of the North-South 400 kV Interconnection Development Project in July 2010, EirGrid undertook a comprehensive re-evaluation of the project. The re-evaluation process included an eight week period of public consultation on the content and findings of a Preliminary Re-evaluation Report in May 2011. Having allowed sufficient time for the Independent Expert Commission (IEC) review on the cost of undergrounding all or part of the North-South 400 kV Interconnection Development and the associated Joint Oireachtas Committee hearing, EirGrid concluded this review process in April 2013 with the publication of the *Final Re-evaluation Report*. Submissions received during the public consultation on the *Preliminary Re-evaluation Report* and observations and submissions in respect of the previous application for approval, along with the findings of the IEC Review, the Government Energy Policy statement and the Joint Oireachtas Committee consultation, were considered by the project team as part of the re-evaluation process.

It was deemed appropriate to allow for an additional period of structured engagement on the content and findings of the *Final Re-evaluation Report* before moving to the next stage of the project having consideration for:

- i) The time lapse between the *Preliminary* and *Final Re-evaluation Report*,
- ii) The addition of new information to the *Final Re-evaluation Report* in light of the IEC Review; and
- iii) Request from a representative group for additional engagement on the findings of the re-evaluation process.

This project has a unique planning context and has been the subject of extensive and comprehensive public and stakeholder consultation activities since it launched in autumn 2007. Submissions received as part of earlier consultations, including those received on the *Preliminary Re-evaluation Report* and during the previous application for planning approval, contained specific issues relating to the line design, including potential localised modifications to, or siting of, the alignment. The essential elements of these submissions are set out in **Section 2.3**.

## **2.2 PUBLIC ENGAGEMENT ON THE FINAL RE-EVALUATION REPORT**

Following the publication of the *Final Re-evaluation Report*, EirGrid held a six-week period of public engagement (between 16<sup>th</sup> April 2013 and 27<sup>th</sup> May 2013) on the contents of that report.

The terms of reference for this engagement were:

- Comment on the content and findings of the *Final Re-evaluation Report*.
- Has EirGrid considered all relevant issues as part of the re-evaluation process? If not what other issues do you think EirGrid should consider?
- Provide feedback on how best to adopt community gain within transmission project developments and the North-South 400 kV Interconnection Development.

EirGrid is grateful to the parties and persons who took time to provide submissions in writing, via the project information service or by attending one of the nine open days held during this period of engagement on the contents and findings of the *Final Re-evaluation Report*. These submissions have been considered by the project team.

### **2.2.1 Overview of Communications Activities**

A range of communication tools were used to facilitate as wide an engagement as possible. Interested parties were invited to participate via the project information centre network and service, at one of nine project information events, or at a pre-arranged project briefing.

#### **2.2.1.1 Information Centre Network & Service**

A comprehensive project information service has been in operation since autumn 2007 and facilitates all interested parties in contacting the project team to provide feedback or obtain information about any aspect of the project. This service can currently be availed of through the project phone line which is open between 9am and 5pm, Monday to Friday (Lo-call 1890 25 26 90); online at [northsouth@eirgrid.com](mailto:northsouth@eirgrid.com) or via traditional mail at: C/O EirGrid NS Project Manager, Block 2, Floor 2, West Pier Business Campus, Dun Laoghaire, Co. Dublin.



Since 2008, EirGrid has had two established information centres, one in Navan, County Meath and one in Carrickmacross, County Monaghan. As part of this most recent round of engagement, EirGrid has expanded the information centre network with the addition of a new information centre in Kingscourt, County Cavan.

The information centres are staffed by project team members who are available to meet with anyone who wishes to visit the centre during the advertised opening hours (see **Table 2.1**). If any stakeholder requires a meeting with the team outside of these hours, every effort is made to accommodate that request.

**Table 2.1 Information Centre Locations and Opening Hours**

Centre	Address	Opening Hours
Navan Information Centre	10a Kennedy House, Kennedy Road, Navan, Co. Meath	Tuesday 12 noon to 7pm
Carrickmacross Information Centre	Carrickmacross Workhouse, Shercock Road, Carrickmacross, Co. Monaghan	Wednesday 12 noon to 7pm
Kingscourt Information Centre	Dún a Rí House Hotel, Station Road, Kingscourt, Co. Cavan	Thursday 12 noon to 7pm

### 2.2.1.2 Open Days

In order to provide all interested parties with an opportunity to obtain information about the project and meet with a variety of technical experts from the project team, a series of six open days, as detailed in **Table 2.2**, were planned and held during the engagement period. Following a request from Monaghan Anti-Pylon Committee an additional three open evening events were held in County Monaghan (detailed in **Table 2.2**).

Members of the project team were available at each open day to engage with members of the public and answer any queries or questions that might arise. As far as possible the project team endeavoured to capture the views and feedback provided by stakeholders during these events.

At each event technical experts were available to provide stakeholders with information on the following topics:

- Technology options;
- Electric and magnetic fields (EMF);
- Planning;
- Environmental matters including ecology and archaeology; Line design; and
- Landowner engagement including compensation, impact on land use and farming practices.

Tailored information displays were prepared by the project team for these events. The displays focused on providing information on the key findings of the *Final Re-evaluation Report*.

Technical experts used detailed mapping of the indicative line route, available at a 1:10,000 and 1:25,000, to provide stakeholders with specific information on the proximity of the line route to their particular areas of interest.

The details of the open days are outlined below in **Table 2.2**.

**Table 2.2 Open Day Venues, Dates and Times.**

Venue	Date and Time
Town Hall, Cavan Town	Tuesday, April 23 <sup>rd</sup> 2013, 1pm – 8pm
Town Hall, Cavan Town	Wednesday, April 24 <sup>th</sup> 2013, 1pm – 8pm
The Workhouse, Shercock Road, Carrickmacross	Thursday, April 25 <sup>th</sup> 2013, 1pm – 8pm
The Workhouse, Shercock Road, Carrickmacross	Friday, April 26 <sup>th</sup> 2013, 1pm – 8pm
Navan Education Centre, Athlumney, Navan	Monday, April 29 <sup>th</sup> 2013, 1pm – 8pm
Navan Education Centre, Athlumney, Navan	Wednesday, May 1 <sup>st</sup> 2013, 1pm – 8pm
Cremartin GAA Centre, Castleblayney	Tuesday, May 22 <sup>nd</sup> 2013, 4.30pm – 8.30pm
Aughnamullen GAA Social Centre, Carrickmacross	Wednesday, May 23 <sup>rd</sup> 2013, 4.30pm – 8.30pm
Corduff-Raferagh Community Centre, Carrickmacross	Thursday, May 24 <sup>th</sup> 2013, 4.30pm – 8.30pm

## 2.2.2 Public Engagement Approach

To facilitate members of the public and other parties participating in this round of engagement the following information was made available to all interested parties at the commencement of this round of engagement:

- A Community Update brochure, containing details of the IEC review, key findings of the project re-evaluation process, terms of reference for this engagement period and contact and event details. This was issued at the commencement of this stage of engagement as detailed in **Section 2.2.2.1** and was made available at the project open days, project website and information service;
- 1:25,000 mapping showing the indicative line route in the CMSA and MSA was made available on the project website, at the project information centre network, at the project information days and

upon request via the project information service. Bespoke maps were prepared and provided to stakeholders upon request;

- The *Final Re-evaluation Report* and associated appendices was available for inspection at the project information centre network and information days. The report was available on the project website and copies were provided upon request. In addition copies of the report were provided to the County Librarian in Meath, Cavan and Monaghan for display in their branches; and
- A frequently asked questions document was produced and made available on the project website. Copies of this document were also available from the project information service.

### **2.2.2.1 Proactive Engagement**

A letter inviting participation in this stage of engagement and enclosing a community update brochure was sent to all the following groups of stakeholders:

- Elected members;
- Statutory and prescribed bodies;
- National representative groups;
- County representative groups;
- Local, business and community groups within 5km of the indicative line route;
- Members of the public including observers in respect of the 2009 application; and
- Landowners along the line route.

In addition, where contact details were available organisations and elected members were proactively contacted by phone or email.

### **2.2.2.2 Publicising the Engagement Process**

Every effort was made to ensure that as many people as possible were made aware of the project and had an opportunity to participate, this was achieved through a combination of news releases to national and local print, broadcast and electronic media, placing seven advertisements in local press and 80 advertisements on local radio stations, and on-line on the EirGrid website.

### 2.2.3 Submissions Received

The submissions received have been reviewed and considered by the project team. The number and nature of submissions are detailed in **Table 2.3**.

**Table 2.3** Number and Nature of Submissions Received on Final Re-evaluation Report

Method of Stakeholder Feedback	Number of Submissions
Project Briefing	18
Information Centres & Telephone Line	22
Written submissions (including email)	58
Open Days (Series 1) <sup>2</sup>	70
Open Evening Events (Monaghan) (Series 2) <sup>3</sup>	500
<b>Total</b>	<b>668</b>

For the purposes of this report the issues raised by stakeholders have been grouped as listed below:

- Submissions received from prescribed bodies on the *Final Re-evaluation Report*;
- Submissions relevant to the *Final Re-evaluation Report*;
- Submissions relevant to the *Preferred Project Solution Report* and subsequent stages;
- Submissions on other issues; and
- Submissions on community gain.

A detailed summary of submissions received is included in **Appendix C** and the high level summary and EirGrid's response to these is included, as appropriate, in the following sections.

### 2.2.4 Submissions Received from Prescribed Bodies on the Final Re-evaluation Report

Submissions from engagement with prescribed bodies on the *Final Re-evaluation Report* were collated from written submissions and meetings. The key points raised in written submissions are summarised in **Table 2.4**. It should be noted that engagement with prescribed bodies is on-going.

<sup>2</sup> This number is based on the number of attendees who registered their presence at the events.

<sup>3</sup> This number is based on the number of attendees who registered their presence at the events.

**Table 2.4 Key Points Raised by Prescribed Bodies on the Final Re-evaluation Report**

Prescribed Body	Key Points Raised	Response
National Roads Authority (NRA)	<p>The indicative route traverses a number of national roads (M3 as well as the N2) and national secondary roads (N51 and N52). It also traverses the line of the Leinster Orbital Route (LOR) which is currently at feasibility stage. The LOR is supported in the Meath CDP, the GDA RPGs 2010-2022 and the NTA's GDA Draft Transport Strategy 2011-2030.</p> <p>The NRA acknowledged that the previous application examined the inter-relationship of the proposed North-South 400 kV Interconnection Development and the LOR. The NRA recommends that EirGrid re-examines the inter-relationship between the two infrastructure projects to take into account any alterations or modifications to the revised North-South 400 kV Interconnection Development for the LOR. The NRA also requests that EirGrid gives consideration to the following matters:</p> <p>(1) Identify the methods/techniques employed in traversing the existing national road network to ensure that the safety and standards of the national road network is maintained through appropriate best practice construction methods.</p> <p>(2) Ensure that proposed works do not impinge on the M3 Motorway and the Concession Operator; the NRA recommends that both the NRA and the M3 Concession Company are consulted during the development of the project concerning works proposed to be undertaken in proximity to the M3.</p> <p>(3) Ensure that the detailed scheme design provides sufficient clearance to facilitate the construction of the future LOR.</p>	<p>Consultations were undertaken with the NRA in relation to the preferred line route and possible crossings of the M3, N2, N51 and N52, in addition to the Leinster Orbital Route which is currently at feasibility stage. Further consultation was undertaken with the M3 Concession Company in relation to the M3. These roads were therefore taken into consideration for the preferred line design and engagement with both bodies will continue during the process of finalising the line design and preparation of the EIS.</p> <p>(1) The stringing of conductors across the national road network will be carried out in accordance with IEEE Std 524-1992 <i>Guide to the Installation of Overhead Transmission Line Conductors</i> incorporating a proven work methodology, which ensures that there is no significant effect on the safe passage of traffic on these roads.</p> <p>(2) and (3) As noted above, consultation will be undertaken with both the NRA and M3 Concession Company representatives during the process of finalising the line design and preparation of the EIS. Such consultation will address the satisfactory clearances between the finished surface of the M3 and the overhead conductor, at the crossing point. As matters stand, the intersection point remains unchanged from that of the previous scheme.</p>
Inland Fisheries Ireland	<p>The Inland Fisheries Ireland (IFI) comment that the proposed powerline passes through a number of river catchments such as the River Tolka, Boyne, Dee, Glyde, Erne, Dromore, and Fane catchments many of which contain valuable fishery habitat with stock of salmonid and coarse fish; noting that a number are protected under the Habitats Directive including Salmon and Lamprey.</p> <p>The IFI observe that in the event that there will be works in or near watercourses that EirGrid is directed to the Guidelines entitled <i>'Requirements for the Protection of Fisheries Habitat during</i></p>	<p>EirGrid confirms that river catchments were considered as part of the re-evaluation process, and will continue to be a consideration in the preparation of an EIS.</p> <p><b>Chapter 6</b> of this report identifies, in general terms, the type of issues which will be considered in the EIS, the nature of the assessment of impacts in respect of those particular issues and the potential associated environmental effects. The potential impact on water quality and fisheries will be assessed as part of the EIS and the wider EIA process.</p>

Prescribed Body	Key Points Raised	Response
	<p><i>Construction and Development Works at River Sites.</i> [published by the Eastern Regional Fisheries Board]. The aim of which is to identify the likely impact on fisheries habitat in the course of construction and development work, and to outline practical measures for the avoidance and mitigation of damage.</p> <p>The IFI are seeking to be kept informed of the proposal and would welcome the opportunity to comment further when more details are available.</p>	<p>EirGrid and its consultants have endeavoured to identify a preferred alignment which avoids or minimises works in or near watercourses. However, in preparing the application for approval and EIS, EirGrid will incorporate the provisions of the guidance document <i>‘Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites’</i> produced by the Eastern Fisheries Board.</p> <p>EirGrid will keep IFI informed at all stages of the project, and will consult with them prior to lodgement of the application.</p>
Geological Survey of Ireland,	<p>The Geological Survey of Ireland (GSI) notes some clarifications in relation to the designation of geological heritage sites:</p> <p>The GSI recommends the use of the term <i>‘recommended for NHA designation’</i> as the GSI is in the process of compiling a list (which is not finalised) of sites proposed for designation as National Heritage Areas (NHAs).</p> <p>The GSI note that they have also determined a secondary list of County Geological Sites (CGS) listed in Appendix 13b of the Meath CDP 2013-2019 and related chapter 9.7.7 (policy NH POL 12 refers).</p> <p>Within the MSA the GSI identifies two CGS (Altmush stream CGS &amp; Boyne River CGS) which Route 3B-MSA traverses. The GSI comments that the features of interest are unlikely to be affected by works. A further two sites of interest are noted (Galtrim Moraine CGS &amp; Nobber CGS) by the GSI who consider that no impacts are anticipated.</p> <p>The GSI recommend that they be contacted during the line design phase for mitigation measures, if applicable.</p>	<p>EirGrid confirms that designation of geological heritage sites was considered as part of the re-evaluation process, and will continue to be a consideration in the preparation of an EIS.</p> <p>In this regard, <b>Chapter 6</b> of this report identifies, in general terms, the type of issues which will be considered in the EIA, the nature of the assessment of impacts in respect of that particular issue and the potential associated environmental effects. The potential impact on soils, geology and hydrogeology will be comprehensively considered in the EIS and assessed as part of the EIA process, and this will include consideration and assessment of potential impacts on geological heritage sites (including those recommended for NHA designation).</p> <p>EirGrid will keep the GSI informed at all stages of the project.</p>
Border Regional Authority	<p>The Border Regional Authority draws the attention of EirGrid to Section 5.4.2.7 of the Regional Planning Guidelines and, in particular, the entire context and wording of policy INFP23, which states that Development Plans <i>‘should facilitate the provision of energy networks in principle’</i> subject to meeting a number of environmental and technical criteria.</p> <p>It is noted that the Sinn Fein members of the Border Regional Assembly also made a submission (dated the 20<sup>th</sup> of May 2013). This is incorporated into the general feedback received in <b>Appendix C</b>.</p>	<p>It is noted that Policy INFP23 notes that Development Plans <i>‘should facilitate the provision of energy networks in principle’</i> subject to meeting a number of environmental and technical criteria. <b>Chapter 6</b> of this report identifies, in general terms, that planning policy issues (including regional planning guidelines) will be considered in the EIS.</p> <p>Engagement with the regional authority will continue during the process of finalising the line design and preparation of the EIS.</p>

## 2.2.5 Submissions from Other Stakeholders on the Final Re-evaluation Report

A number of submissions raised issues that were of relevance to, or in response to, the *Final Re-evaluation Report*. The issues are set out in **Appendix C** of this report and are grouped under three main headings as follows:

### 1. Project Need/Scope

A number of submissions made observations and provided feedback in respect of the need for the project. Examples of the issues raised are set out in **Appendix C (Section 2.1)**.

**Response:** Project need is addressed in Chapter 2 of *The Final Re-evaluation Report*. The chapter sets out why the proposed second north-south electricity interconnector (the “Scheme”) is a critical and strategically urgent transmission reinforcement on the island of Ireland. The chapter provides a summary of the benefits the Scheme provides to consumers on the island of Ireland. Section 2.2 in particular describes these benefits with reference to security of supply, electricity market integration and facilitation of renewable energy. In addition, section 2.3 exclusively deals with the implication of the recent economic downturn on the need for the project. This section concludes that the key drivers for the project such as security of supply, electricity market integration and the longer term facilitation of renewable energy sources on the island are not significantly impacted by changes in short to medium term demand forecasts.

### 2. Alternatives (in particular Technical Alternatives)

Many of the submissions questioned the alternatives which have been considered for the project, in particular the technical options considered. The specific issues related to:

- Environmental and cost comparison of underground cables (UGC) versus overhead lines (OHL);
- Routing suggestions for UGC;
- Reference to international examples and advances in technology; and
- Other options to meet the needs of the project.

Examples of issues raised are set out in **Appendix C (Section 2.2)**.

**Response:** Technology options are addressed in Chapter 3 of the *Final Re-evaluation Report*. The chapter reviews latest studies on technology options available to the project and includes a comprehensive review of the findings of the International Expert Commission (IEC). Section 3.3 in particular provides a comparative assessment of the use of High Voltage Direct Current (HVDC) technology as an alternative to High Voltage Alternating Current (HVAC) technology and includes consideration of the findings of the IEC report. The results of this comparative assessment are

summarised in section 3.3.1 and highlight that the HVAC option is the preferred solution based on a range of criteria including cost, transmission network expansion and international best practice. In relation to the cost difference between HVDC and HVAC technology options in particular, the *Final Re-evaluation Report* noted that the IEC had confirmed that a HVDC UGC option would cost at least €333 million more than a comparable HVAC OHL option.

Since the publication of the *Final Re-evaluation Report*, EirGrid has also recently published a new study into the cost of undergrounding the proposed North-South 400 kV Interconnection Development. The study<sup>4</sup> by consultants Parsons Brinckerhoff follows from their recent study for the UK Government on *Electricity Transmission Costing*<sup>5</sup> and provides the most up-to-date information on the cost of a HVDC UGC solution for the project. In summary, the report further confirms that the cost of a HVDC UGC option would be significantly higher than that of a HVAC OHL solution and indicates that the range of cost difference for the Scheme (excluding the intermediate substation near Kingscourt) would be in the region of €670 million euro.

### 3. Study Area, Corridor Identification and Corridor Evaluation

Many of the submissions made observations and comments on the project study area and the corridor identification and evaluation processes. Examples of issues raised are set out in **Appendix C (Section 2.3)**.

**Response:** The re-evaluation of the proposed study area is addressed in Chapter 4 of the *Final Re-evaluation Report*. As noted under section 4.3 of this report, the re-evaluation included consideration of previously published material on the study area including an assessment of using the eastern coast as a boundary for the study area<sup>6</sup>. The chapter concludes in section 4.5 by stating that no new constraints information has arisen which would require the introduction of additional study area within which to route the proposed North-South 400 kV Interconnection Development. Section 4.4 of the *Final Re-evaluation Report* also outlines the rationale for the use of two study areas for the project and Appendix B of this report includes a specific response to a submission on this matter. In this regard, submission FS-2 contended that the two study areas “*should have been unified into one study area from Woodland to the border*”<sup>7</sup>. EirGrid’s response to this contention clarifies that the continued division of the study area into two sections is provided primarily to “*facilitate review by the public and other parties of that portion of the scheme which is of most importance to them...*”.

The re-evaluation of route corridor identification and comparative assessment is addressed in Chapter 6 and Chapter 7 of the *Final Re-evaluation Report* respectively. The aim of the corridor

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<sup>4</sup> *Cavan-Tyrone & Meath-Cavan 400 kV Transmission Circuits – Technology and Costs Update*, available at <http://www.eirgridprojects.com>

<sup>5</sup> Available at <http://www.theiet.org/factfiles/transmission.cfm>

<sup>6</sup> Available at <http://www.eirgridprojects.com>

<sup>7</sup> Refer to *Final Re-Evaluation Report – Appendix B*, page B18, available at <http://www.eirgridprojects.com>



identification process is to identify feasible route corridors within the study area. This re-evaluation takes into consideration updates to the detailed constraints assessments previously undertaken and Chapter 6 concludes that no new significant information has arisen which would give rise to alternative route corridors being identified. The comparative corridor evaluation outlined in Chapter 7 then identifies the least constrained corridor option across both study areas between Woodland and Turleenan. This preferred route corridor is described in Chapter 7 as route corridor option A (CMSA) and route corridor option 3B (MSA). As described under section 4.2, the general location of the proposed intermediate substation is determined by the point of intersection of this least constrained route and the existing Flagford-Louth 220 kV OHL. This intersection guides the future siting of a substation in the vicinity of Kingscourt when the need arises.

In conclusion, in response to feedback received, the aim of the above summary is to provide further clarity on relevant conclusions reached within the *Final Re-evaluation Report*. Although a number of issues were raised in relation to the report itself and the conclusions reached, no new issues were identified during public and stakeholder engagement on the *Final Re-evaluation Report* which would alter, or cause reason to review, the conclusions of EirGrid and its consultants in respect of the technical nature of the proposed North-South 400 kV Interconnection Development location of the preferred line route.

It should be noted however, that as part of the Environmental Impact Assessment (EIA) process, a number of key items addressed in the re-evaluation process such as technology alternatives and project need will be further addressed in documents to be submitted with the application for planning approval, including the EIS.

## 2.2.6 Submissions Relevant to the Preferred Project Solution Report

A number of submissions raised specific concerns or enquiries in respect of the alignment of the planned circuit, including potential localised modifications to, or siting of, the alignment as well as access during the construction phase. The issues raised are summarised below and set out in **Appendix C (Section 3)** of this report under the following headings:

### 1. Modifications

A number of submissions received from stakeholders related to the modifications made to the indicative line route since the last phase of landowner engagement in July 2011 and suggestions for further modifications to be made to the line route. General concerns in relation to the rationale for the modifications made, and how the modifications would impact specific landholdings or dwellings and farming activities, were raised by a number of stakeholders. Other concerns were more site specific. Examples of specific requests and issues raised in relation to the modifications are set out in **Appendix C (Section 3.1.1)** of this report.

**Response:** The line design process and the consequent modifications made to the indicative line route are addressed in detail in **Chapter 3** of this report. The line design process involves consideration of a

range of environmental and technical matters relevant to OHL design generally and others more specific to the particular project (including landowner feedback), in order to determine what constitutes the most suitable line design. Specific requests for modifications are currently being considered as per the process set out in **Section 2.4** and include the following:

- Some stakeholders felt that the modifications in the vicinity of Doohamlet as set out in **Table 3.2**, has resulted in a greater impact on their landholding or dwelling house and requested additional options are considered to make the required diversion;
- Some landowners advised of locations within their land that would either be unsuitable for locating structures or would significantly impact upon their farming practices or woodlands and requests for minor adjustments to the proposed alignment through their lands; and
- Request that partial undergrounding be considered from the intersection with the existing Oldstreet-Moneypoint line into Woodland substation.

In addition, this currently preferred alignment will be the subject of further landowner engagement, other public and stakeholder consultation and input, as well as on-going technical and environmental assessment and analysis. The final line design for the North–South 400 kV Interconnection Development to be submitted to ABP will be assessed and included in the EIS which will accompany the planning application for approval.

## 2. Information on the Line Route and Design and Location of Towers

Many submissions raised concerns regarding the proposed line route and the design and location of the tower structures. Queries included the location and footprint of towers, the distance between towers and the required clearance from the ground. Other specific requests and issues raised are set out in **Appendix C (Section 3.1.2)**.

**Response:** The line design process including the approach to siting towers and tower design is described in detail in **Chapter 3** of this report. It is intended to carry out further technical, environmental and other surveys and studies to confirm the specific siting of structures and inform the preparation of the EIS. Landowners, will therefore, have a further opportunity to influence the fixing of those tower structure positions which may directly affect them. The final line design for the North–South 400 kV Interconnection Development to be submitted to ABP for approval will identify fixed tower structure positions. EirGrid will not be seeking permission in its application to move tower positions post-planning (previously referred to as “micro-siting”).

### 3. Proximity to Dwellings and Other Receptors

Many submissions expressed concerns relating to the proximity of the line route to dwelling houses or other receptors, such as community facilities and schools. A large number of the attendees at the project information days also requested measurement of the exact distance of the indicative line route from their dwelling house or other receptors. The concerns were generally on the grounds of visual impact or health concerns. Specific requests and issues raised in relation to the proximity of the line route to dwelling houses or other receptors are set out in **Appendix C (Section 3.1.3)**.

**Response:** EirGrid acknowledges landowner and householder concerns in respect of the project's potential impact on specific landholdings and dwellings. EirGrid endeavours to provide stakeholders with appropriate and relevant information in respect of the project. The potential impact of the project on individual dwellings, landholdings and other receptors, such as community facilities and schools will be assessed and included in the EIS which will accompany the planning application for approval.

### 4. Construction, Access to Lands

Construction methodology and land access were raised in a number of submissions. During the project information days a number of stakeholders also requested additional information on these topics. Queries included what steps EirGrid can take in the event of consent for access not being given by landowners. Some stakeholders also enquired whether EirGrid's rights extend to stringing towers over land without landowner consent and asked what rights the landowner maintained. Specific issues raised in relation to the construction process, land access and operational phase of the development, are set out in **Appendix C (Section 3.2)**.

**Response:** Observations received in respect of the proposed construction process, including access to land (during construction and operation), have been considered in the preparation of **Chapter 5** of this report. In addition, EirGrid confirms that an agricultural advisor will be made available to all landowners should they wish to discuss the project and jointly explore ways of minimising the impact of the project on their farming practices. Landowners who wish to avail of this can find the relevant details in their landowner packs. The potential impact of the construction and operational phases of the North–South 400 kV Interconnection Development on landholdings will also be assessed and included in the land-use/agronomy section of the EIS.

## 2.2.7 Responses Relevant to the Environmental Impact Assessment Process

As part of this stage of public engagement, issues of relevance for the EIA were raised. Details of specific observations, constraints and considerations raised by stakeholders and of potential relevance for the EIA stage are set out in **Appendix C (Section 4)**.

### 1. Agronomy

A number of landowners raised concerns about potential farming restrictions that will apply to their land following the construction of the project. These stakeholders were concerned that the project would result in the sterilisation of farmland beneath and adjacent to the tower structures and the OHL circuit. Other concerns included the potential impact on animal health and the proximity of the indicative line route to farm buildings. Specific concerns raised by stakeholders in relation to these issues are outlined in **Appendix C (Section 4.1)**.

### 2. Community and Socio Economic Impact

A number of submissions raised concerns that the project will give rise to unrest within their communities with some advising that any landowner who allows a tower will be in opposition to their community and that the project will result in divisions amongst neighbours. A number of stakeholders felt that the receiving community would not benefit from the project. In addition they raised concerns that the project would negatively impact businesses in the vicinity of the line route and in particular those that depend on tourists. Specific concerns raised by stakeholders in relation to community and socio-economic impacts are outlined in **Appendix C (Section 4.2)**.

### 3. Cumulative Impact

A number of submissions raised concerns regarding the cumulative impact of future development in the vicinity of the project. In particular, the substation in Moyhill, the future development of lines in the area and the development and extension of wind farms in proximity to the line route. Specific concerns raised by stakeholders in relation to cumulative impact are outlined in **Appendix C (Section 4.3)**.

### 4. Cultural Heritage & Archaeology

Concerns were raised regarding the project's potential impact on cultural heritage and archaeological sites in proximity to the line route. Specific sites identified by stakeholders for consideration by the project team during the EIA process are listed in **Appendix C (Section 4.4)**. Other stakeholders queried the diversion around the site of the Battle of Clontibret, advising that as this does not attract tourists they felt that this diversion resulted in a greater environmental impact.

## 5. Ecology

Submissions outlined general concerns regarding wildlife in proximity to the line, in particular birds, bats and fisheries. Specific ecological sites and features identified by stakeholders for consideration by the project team during the EIA process are listed in **Appendix C (Section 4.5)**. Other concerns included noise impact on bats, the impact on a locally important brown trout fishery and spawning beds of Lough Mourne.

## 6. Health

A number of submissions outlined general concerns about perceived health impacts due to the presence of overhead powerlines, specifically in relation to Electric and Magnetic Fields (EMF) including cancer, childhood leukaemia, and the impact on mental health including stress and depression, and human fertility. These concerns were typically raised in the context of the proximity of the proposed line route to the stakeholder's dwelling house or other receptors such as community facilities and schools. Specific queries and concerns raised about the potential health impacts associated with the project are outlined in **Appendix C (Section 4.6)**.

## 7. Landscape & Visual Impact

General concerns regarding visual impact and how the project could impact upon the visual amenity of the landscape in proximity to the line were expressed by a number of stakeholders. Stakeholders feel the line and associated structures would be unsightly and impact on scenic views of the countryside. Specific concerns relating to landscape and visual impact are outlined in **Appendix C (Section 4.7)** of this report.

## 8. Noise

Some stakeholders expressed concerns regarding the potential noise impact of the interconnection development particularly in relation to areas in close proximity to the line route and associated structures. Specific concerns raised in relation to potential noise impact associated with the North-South 400 kV Interconnection Development are outlined in **Appendix C (section 4.8)**.

**Response:** These topics have been considered in the preparation of **Chapter 6** of this *Preferred Project Solution Report* and will be further considered by the relevant specialists in preparing the EIS to accompany the planning application to ABP for approval of the North-South 400 kV Interconnection Development.

As detailed in **Section 2.2.1.2** of this report, EirGrid had a range of technical experts including an EMF specialist available at the project information days to provide all interested parties with information and to answer any queries. As part of the consultation on this report, EirGrid will hold a further series of open days where various technical experts will again be available to meet with stakeholders and answer their queries.

In addition to this, stakeholders with specific enquiries can also contact the project information service to request information or set up an appointment to meet with relevant members of the project team.

Furthermore, with the identification of the preferred line design, the North-South 400 kV Project has now been developed to a level of detail considered sufficient to allow EirGrid and its consultants to consider where significant impacts are likely to arise and the issues which need to be addressed in the Environmental Impact Statement (EIS). Therefore, in **Chapter 6** of this report, EirGrid has identified, in general terms, the range of issues which are likely to be considered in the EIS, the nature of the assessment of impacts in respect of that particular issue and the potential associated environmental effects.

## 2.2.8 Feedback on Other Issues

As part of this stage of public engagement, a number of submissions raised general issues relating to the project. These are detailed in **Appendix C** and are grouped under the following headings:

- Public Engagement;
- Planning;
- Compensation; and
- Property.

### 2.2.8.1 Response

EirGrid endeavours to provide stakeholders with appropriate and relevant information in respect of the project. Specific maps detailing the requested information were provided in response to requests from stakeholders. EirGrid is also committed to ensuring that all stakeholders are aware of the opportunities to participate. The feedback received in relation to the promotion of this round of engagement has been considered and, where appropriate, incorporated into future project activities.

The potential impact of the project development on property will be addressed within the EIS which will be prepared for the application in accordance with existing guidelines. It is proposed that consideration of this issue will be included within the EIS chapter on Material Assets. **Section 6.2.4.8** of this report provides a summary outline of the proposed scope of this chapter for consultation. EirGrid also endorses the approach to loss of development rights set out in the ESB/IFA Code of Practice.

In the event that the proposed development receives planning approval and proceeds to construction, landowners of holdings which are directly affected by the routing of the alignment, either by way of having structures located on, or wayleaves across their lands, are entitled to statutory compensation. While agreement regarding compensation is always sought by EirGrid with landowners, there is also a process of independent arbitration, in the event agreement cannot be reached. The statutory entitlement to compensation is considered to offer an appropriate mitigation to landowners in respect of the impact, if any, upon property directly arising from the development of strategic transmission infrastructure on their lands.

### 2.2.9 Feedback on Community Gain

A number of stakeholders provided feedback relating to community gain, this is detailed in **Appendix C**. All feedback relating to community gain, has been collated and will be issued to the relevant parties (e.g., Department of Environment, Community and Local Government (DOECLG) and Department of Communications Energy and Natural Resources (DCENR)) for consideration as part of the decision making process for determining a suitable community gain model in respect of transmission projects. In this latter regard, it should be noted that any future policy in respect of Community Gain is likely to be in respect of major transmission projects in general, rather than specifically for the North-South 400 kV Interconnection Development Project.

## 2.3 PREVIOUS SUBMISSIONS RELEVANT TO THIS STAGE OF PROJECT DEVELOPMENT

Due to the unique context of the North-South 400 kV Interconnection Development (in terms of the previous application for planning approval and feedback arising from the Preliminary and Final Re-evaluation Reports) there is a considerable volume of written and oral submissions by prescribed bodies, other stakeholders, landowners and the general public. These submissions contain information which was useful to EirGrid in undertaking its review of the nature and location of the new development as part of the re-evaluation process and, ultimately, in the identification of the preferred project solution. These submissions also included specific issues relating to line route, including potential localised modifications to the alignment or siting of structures. These were acknowledged in the *Final Re-evaluation Report* as matters more appropriately associated with, and thereby addressed by, the process of route confirmation and preparation of the EIS.

As part of the line design process, each issue was subject to detailed review and assessment in line with the approach outlined in **Section 2.4**. Where the recommendation or request to modify the line design was determined to be environmentally and technically feasible, modifications to the line design have resulted. A summary of the issues and specific modification requests is set out in **Table 3.1**, **Table 3.2** and **Table 3.3 of Chapter 3**. In this regard, the report acknowledges issues and requests for modification of the line design by statutory bodies and other organisations that made submissions. However, in the context of EirGrid's legal obligations in respect of data protection, this report does not detail any requests which might reveal the identity of, or discussions or requests to modify the line route from, private individuals/landowners.

## 2.4 HOW SUBMISSIONS MAY INFORM THE LINE DESIGN PROCESS

It is EirGrid's experience of developing electricity transmission infrastructure, that individuals who live in close proximity to the line route, including landowners, will often make a request to maximise the distance from the proposed line to their dwelling. In addition, landowners will often express a preference as to where the line might cross their land; or request a change as to how or where a line is proposed to cross their land; and, in particular, where any structures might be located on their land (e.g. on field boundaries or in

hedgerows). In addition, other bodies and organisations (including prescribed bodies) often raise issues or concerns in respect of particular aspects of the proposed development, including tower positions.

Modification requests have and will continue to be dealt with as follows:

- From a technical perspective, the proposed tower position modification will be assessed using a Digital Terrain Model (DTM), Power Line Systems – Computer Aided Design and Drafting (PLS CADD), aerial photography, aerial LiDAR<sup>8</sup> and Ordnance Survey mapping to determine its feasibility. Implications for tower spans, tower heights, conductor clearance levels, separation distances to dwellings, etc. will also be assessed; and
- From an environmental perspective, the proposed modification is assessed by the relevant specialists – including ecologists, archaeologists, hydrologists, geologists, landscape architects, planners, agronomists and wayleave agents. Initially, a desk based assessment is undertaken which includes a review of environmental constraints using aerial photography, LiDAR and other environmental datasets. Field, vantage point and other site specific surveys are also carried out where applicable and, if possible, surveys are carried out on the lands with the consent of the landowner;

The guidelines for dealing with modification requests are set out below:

- All reasonable design change requests will be technically and environmentally assessed in accordance with the approach outlined above.
- In order to be acceptable, suggested design changes:
  - must meet general line design requirements<sup>9</sup> (this includes the environmental and technical considerations identified in **Section 3.3.2**);
  - must not result in an undue greater impact for nearby or adjoining dwellings/sensitive receptors;
  - should minimise the number of macro<sup>10</sup> changes to the overall line design; and
  - proposed modifications should be confined, where possible, to the landowner's property, unless otherwise agreed with adjoining landowners.
- A balanced judgement will be made based on technical, environmental and other considerations.

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<sup>8</sup> LiDAR is a remote sensing technology that uses laser scanning to collect height and elevation data

<sup>9</sup> Priority is given to modifications to ensure compliance with relevant legislation (Codified Environmental Impact Assessment (EIA) Directive 2011/92/EU) and Habitats Directive ((92/43/EEC)).

<sup>10</sup> Representing a significant change over several hundred metres which has generally resulted in additional angle masts

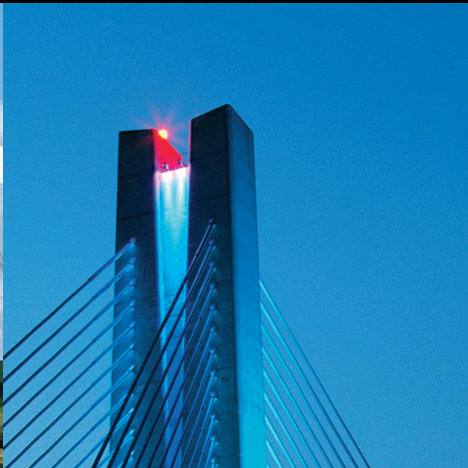
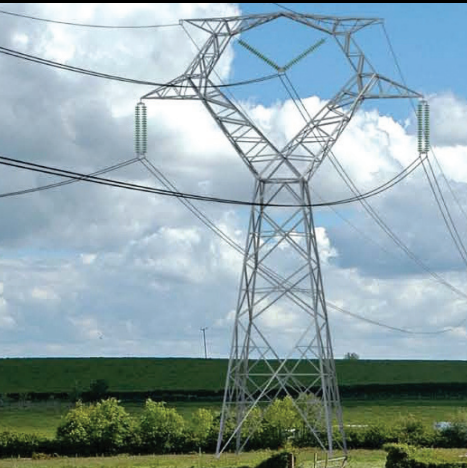


The next phase of landowner engagement will provide a further opportunity for landowners to provide feedback on the proposed structure locations on their land. During this engagement, individual landowners may express a preference as to where structures might be relocated on their land. All reasonable design change requests will be technically and environmentally assessed (as detailed above). The appropriateness of further potential modifications to the line design will ultimately be confirmed in the application for approval in respect of the North-South 400 kV Interconnection Development. Where these can be accommodated, without creating additional impact, they will be further considered in dialogue with the landowner concerned, and may ultimately comprise part of the finalised proposal. Where it is assessed that they would create additional avoidable significant impact, it is likely that it will not be possible to include them as part of the final application for planning approval.

## **APPENDIX F**

### **APPENDIX C OF THE PREFERRED PROJECT SOLUTION REPORT – THE FINAL RE-EVALUATION PUBLIC ENGAGEMENT REPORT**





# North-South 400kV Interconnection Development



# Preferred Project Solution Report APPENDIX C

The Final Re-evaluation Public Engagement Report



Part Funded by the EU-TEN-E Initiative



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## 1. SUBMISSIONS RECEIVED

EirGrid is grateful to stakeholders who took the time to provide their feedback during the structured engagement period on the *Final Re-evaluation Report*.

This appendix sets out a summary of the views, opinions and issues raised by stakeholders. **The opinions and views set out in the following sections are those expressed by stakeholders who provided feedback and do not necessarily reflect the opinions or views of EirGrid.**

All submissions made by stakeholders either in writing, on-line, at the information centres, open days or over the phone have as far as possible been captured, logged and reviewed by the project team and are summarised in the following sections. Members of the project team, including technical, environmental and EMF experts were available at each open day to engage with members of the public and answer any queries or questions that arose. As far as possible the project team endeavoured to respond to and capture the views and feedback provided by stakeholders during these events. This report, together with the complete submissions, has been reviewed by the project team in the preparation of the *Preferred Project Solution Report*.

In the context of legal obligations in respect of data protection, the personal details of consultees and the submissions they have made to EirGrid have not been published.

The issues raised by stakeholders have been grouped having regard to the Terms of Reference for this engagement period, and as listed below:

- Submissions relevant to the *Final Re-evaluation Report*;
- Submissions relevant to the *Preferred Project Solution Report*;
- Submissions Relevant to the Environment Impact Statement (EIS);
- Submissions on Community Gain; and
- Feedback on Other Issues.

Where issues raised are relevant to the current stage of the project it is responded to in **Chapter 2** of the main report. Where feedback received is relevant to subsequent stages, for example during the Environmental Impact Assessment (EIA) stage, it will be considered and responded to at such future stage, as appropriate.

## 2. SUBMISSIONS RELEVANT TO THE FINAL RE-EVALUATION REPORT

A large proportion of submissions raised issues that were of relevance to, or in response to, the *Final Re-evaluation Report*. The issues are grouped under three main headings as follows:

- Project need/scope;
- Alternatives; and
- Study area, corridor identification and corridor evaluation.

### 2.1. PROJECT NEED/SCOPE

During this engagement period many stakeholders made observations and provided feedback in respect of the need for the project. Specific issues included:

- Some stakeholders welcomed the project, acknowledged the need and requested information on potential employment opportunities and socio-economic benefits arising for the area. Other stakeholders advised that while they appreciated the need for the project, they were objecting to the technology proposed for this project.
- Other stakeholders did not accept the principle of the project. They advised that they did not believe that demand existed in Ireland for this project given the economic downturn and high levels of unemployment.
- A number of stakeholders raised concerns that the need for this project was driven to benefit and meet demand in the United Kingdom (UK), with some stakeholders referencing the export of wind energy to the UK market.
- Other stakeholders felt that there was no requirement for power transfer to Northern Ireland and advised that in their view, the project was proposed to fulfil the needs of the Greater Dublin Area (GDA). Others however referenced the recent outages in Northern Ireland and enquired about security of supply issues in Northern Ireland.
- General enquires were received regarding the ability of the project to improve competition. Specific points included:
  - How the transfer of electricity between jurisdictions would improve competition given that EirGrid is the system operator in both jurisdictions.
  - The relationship of the project with electricity supply/generation, tariffs paid for electricity generation and the source of the power to be transmitted through the proposed interconnector.

- A number of stakeholders noted that they would like to see a reduction in electricity prices and enquired as to how these savings were calculated and would be passed on.
- Other stakeholders felt that the cost of undergrounding the line should be borne by all electricity consumers in Ireland.
- Expressions of support for renewable energy and the integration of renewable energy with the transmission network were received. Specifically support was shown for the generation of wind energy in Ireland. In addition, some stakeholders enquired as to how EirGrid plans to reduce its dependency on fossil fuels and how Ireland's plans to increase renewable energy are progressing.
- A number of stakeholders questioned why the substation at Kingscourt has been deferred and sought clarification of EirGrid's future plans in the area.
- Some stakeholders enquired what benefits the project would bring to their community and local businesses.

## **2.2. ALTERNATIVES**

Many of the submissions received questioned the alternatives which have been considered for the project, in particular the technical options considered.

The specific issues related to:

1. Environmental and cost comparison of underground cables (UGC) versus overhead lines (OHL);
2. Routing suggestions for UGC;
3. Reference to international examples and advance in technology; and
4. Other options to meet the need of the project.

### **2.2.1 ENVIRONMENTAL AND COST COMPARISON OF UGC VERSUS OHL**

A number of stakeholders stated that it is their preference that the line be placed underground. In this regard, some stakeholders referenced the conclusion of the IEC review that undergrounding is technically feasible for the project. Some stakeholders questioned if EirGrid has not accepted the findings of this report and whether it has completely ruled out undergrounding, including the use of partial undergrounding, as an option for this project.



The benefits and disadvantages in respect of financial costs and environmental impacts for both UGC and OHL were raised by stakeholders. This included requests for further independent studies on the option of undergrounding.

## **1. Cost of Undergrounding**

A number of stakeholders considered the key factor in deciding whether to propose OHL or UGC for this project is cost and suggested that the public would be willing to pay more for this project to be implemented using UGC. Some stakeholders advised that, as the project was funded by tax payer's money, they should have more input into the location and technology proposed for the project. Some stakeholders advised that, in their view, EirGrid would propose UGC if it was cheaper than OHL.

Other stakeholders referenced the different cost comparisons for OHL and UGC referred to by EirGrid since 2007 and suggested there was a lack of consistency. In doing so, stakeholders referenced continuing advances in technology and suggested that the cost differentials between the two technologies would likely decrease further in the future.

General enquires were received as to the basis of the cost comparison, including whether impacts on land value had been included in the comparison made, whether a detailed costing on UGC had been undertaken and how this compares with the projected cost savings to be achieved by the project.

Some stakeholders requested that the cost differential be provided in the context of an average projected increase on an electricity supply bill so they could establish the context.

## **2. Comparison of Environmental Impact**

A number of stakeholders advised that they felt that placing the lines over ground would cost more in the long-term than undergrounding, due to its environmental impacts, community impact, health effects (particularly in respect of children) and/or property/land devaluation. Specific issues included:

- Stakeholders advised that unlike in the case of a road project, there is an alternative that they consider has a lower environmental impact, particularly in relation to visual impact and health.
- A number of landowners advised that they would have no concern with the construction of underground cabling through their land.
- Some stakeholders felt that the project was being progressed at the expense of their community, particularly in relation to health.
- Other stakeholders advised that, in their view, EirGrid has not adequately undertaken a comparative assessment of the impact of OHL versus UGC including the completion of an exhaustive study on the feasibility of an underground High Voltage Direct Current (HVDC) option.

### **2.2.2 UGC ROUTING SUGGESTIONS**

A number of stakeholders suggested potential routing options for an UGC. The majority of these suggested co-location with existing infrastructure. Specific locations suggested include:

- Disused railway lines in Meath, Cavan and Monaghan.
- A 25m sterile corridor from Monaghan town to Aughnacloy along the N2. Stakeholders advised that landowners could provide additional land alongside the road.
- Investigation of an off-shore option or a route closer to the east coast.
- Existing linear corridors e.g. motorways or the route should have been combined with the recent gas pipeline project.

### **2.2.3 REFERENCE TO INTERNATIONAL EXAMPLES AND ADVANCES IN TECHNOLOGY**

A number of stakeholders referenced international examples where UGC was used and referenced advances in UGC technology. Specific issues raised include:

- Some stakeholders made general enquiries regarding new electricity infrastructure in other countries and referenced recent projects in Spain, Denmark, Germany, the United Kingdom and Canada where UGC was selected as the technology of choice.
- Some stakeholders felt that EirGrid has and is continuing to ignore technological advances that would allow high capacity electrical infrastructure to be undergrounded with particular reference to VSC HVDC cable.
- General enquires were received as to why the United Kingdom can include longer sections of UGC than is feasible in Ireland and whether using lower voltage cables, e.g. 220 kV, rather than 400 kV would overcome any difficulties.

### **2.2.4 ALTERNATIVE OPTIONS TO MEET THE NEED OF THE PROJECT**

A number of stakeholders questioned why other options such as the construction of new electricity generators between Dublin and Tyrone or additional wind farms along the west coast could not provide the same benefits of this project.

### **2.3. STUDY AREA, CORRIDOR IDENTIFICATION AND CORRIDOR EVALUATION**

A number of submissions made observations and comments on the project study area and the corridor identification and evaluation processes.

With regard to the project study area, a number of stakeholders advised that in their view the re-evaluation process should have looked at the broad area again. Others advised that the study area should have been extended to the east to include the option of co-location along the existing M1 corridor and the east coast.

A number of stakeholders made general enquiries regarding the removal of the proposed substation at Moyhill and how this affected the study area and resulting corridors.

A number of stakeholders had general enquires on the corridor identification and evaluation processes. This included suggestions for the co-location of the project along existing infrastructure corridors such as routing of the project along the N2. Other stakeholders advised how they considered there was a lack of transparency in route corridor and indicative line route selection and requested information on how constraints were evaluated including the determination of priority constraints during corridor evaluation.

Some stakeholders also felt that there was no significant difference between EirGrid's original findings as they relate to the CMSA and the findings detailed in the *Final Re-evaluation Report*.

### 3. SUBMISSIONS RELEVANT TO THE PREFERRED PROJECT SOLUTION REPORT

#### 3.1. LINE DESIGN

A large number of submissions raised specific concerns or enquiries in respect of the alignment of the planned circuit, including potential localised modifications to, or siting of, the alignment as well as access during the construction phase.

The issues are grouped under the following headings:

- Modifications;
- Information on the structure design and locations;
- Proximity to dwellings and other receptors;
- Construction and access to lands; and
- Operation of the line.

##### 3.1.1 MODIFICATIONS

A number of submissions received from stakeholders related to the modifications made to the indicative line route since the last phase of landowner engagement in July 2011 and proposed further modifications to the line route.

Specific requests and issues raised include:

- Information was requested on the modifications, including the rationale for modifications, made since the previous round of landowner engagement.
- Some stakeholders felt that these modifications had resulted in a greater impact on their landholding or dwelling house; others felt that their previous concerns had been taken into account; others raised concerns that the modifications meant that the line would no longer cross their land.
- In particular, some stakeholders felt that the modifications in the vicinity of Doohamlet as set out in **Table 3.2** of this report, has resulted in a greater impact on their landholding or dwelling house and requested additional options are considered to make the required diversion.
- Information was requested on whether any further details could be provided on the proposed location of towers at this stage and what future input stakeholders can have in the modification of tower locations.

- Concerns were raised about the potential impact on farming activities in particular where the line route traverses the centre of a field or a small field. Some landowners advised of locations within their land that would either be unsuitable for locating structures or would significantly impact upon their farming practices or woodlands.
- Requests for minor adjustments to the proposed alignment over specific landholdings.
- Request that partial undergrounding be considered from the intersection with the existing Oldstreet-Moneypoint line into Woodland substation.

### **3.1.2 INFORMATION ON THE LINE ROUTE AND LOCATION OF TOWER STRUCTURES**

Many submissions raised concerns regarding the proposed line route and the location of the tower structures.

Queries from stakeholders in relation to line design included a number of site specific issues relating to the location and footprint of towers, the distance between towers, the required clearance from the ground and the route crossing agricultural landholdings.

A number of stakeholders had queries and concerns relating to the line route selection process. These included:

- Ecology and other environmental constraints have been prioritised over dwelling houses and impact on communities.
- EirGrid has kept the line away from houses and picked a route with the least number of houses so that there would be fewer objectors.
- Why the line route is not straighter and what is the rationale for changes in direction within the line.
- Whether the tower locations can be amended after planning is granted.

Stakeholders enquired as to how the proposed line design will compare with existing lines in the area citing the existing interconnector and the Flagford-Louth 220 kV line as examples.

Other stakeholders requested information on the proposed tower design and advised that monopole structures, wooden pole structures or twin pole structures would be preferable.

Queries regarding whether the proposed conductor would be insulated, the material it would be composed of and its proposed diameter.

A number of stakeholders questioned the rationale for the siting of angle structures away from field boundaries and requested information on how towers are located.

### **3.1.3 PROXIMITY TO DWELLINGS AND OTHER RECEPTORS**

Many submissions expressed concerns relating to the proximity of the line route to dwelling houses or other receptors. A large number of the attendees at the project open days requested measurement of the exact distance from their dwelling house or other receptor to the indicative line route. A number of submissions received concerned the proximity of the line route to dwelling houses and other receptors, such as community facilities and schools. A number of stakeholders raised concerns regarding the proximity of these receptors to the line route on the basis of visual impact and stated their concern about health impacts.

Specific feedback included:

- The stakeholders most concerned about the proximity of their dwelling houses were typically within 500m of the indicative line route. These stakeholders stated that they were concerned about the visual impact of the project and raised concerns about the health impact on their communities, their families and their neighbours.
- Stakeholders referenced the distance from the line route advising that the 50m aspirational distance used by EirGrid was insufficient and referred to practices in other countries where greater distances were achieved citing examples in Scotland and Holland where they advised that a 100m separation distance is used.
- Some stakeholders expressed concern about the proximity of the line route to other receptors including:
  - Doohamlet National School - concerns were raised that the school could see a reduction in numbers as a result of the proximity to the indicative line route;
  - Raferagh National School;
  - Annyalla National School;
  - Clontibret Goldmine;

- Clogher GAA pitch;
- Local alternative health clinic;
- Lough Egish Rod and Gun Club;
- Unmarked graveyard Corduff; and
- Flax mill in close proximity to the line route in Benagh.

## **3.2. CONSTRUCTION AND ACCESS TO LANDS**

The construction process and land access were raised in a number of submissions and during the project information days a number of stakeholders requested additional information on these topics.

### **3.2.1 CONSTRUCTION ACCESS**

A number of stakeholders made enquiries in respect of the legal rights of EirGrid to enter private lands. They queried what steps EirGrid can take in the event of consent for access not being granted by landowners. Some stakeholders enquired whether EirGrid's rights extend to stringing towers over land without landowner permission and asked what rights the landowner maintains.

A number of submissions by landowners advised that they did not want EirGrid to enter their land while others advised that they would only grant access if the project was undergrounded.

Specific queries and concerns raised include:

- Enquires regarding shared and private access tracks, how these will be utilised and how would owners be compensated;
- Concerns that the local roads were not suitable to support the construction traffic for this project;
- Enquires regarding the assessment of land damage during construction, how this would be undertaken and compensated;

- Concerns that a number of lanes and tracks in the vicinity of the line route currently experience difficulty with access for farm machinery and are not suitable for construction traffic;
- Enquiries relating to proposed traffic control measures to be implemented for the duration of the project and concerns about the impact of any additional traffic on local road users particularly cyclists and pedestrians; and
- Enquiries relating to the maintenance of the road network during the construction phase and reinstatement thereafter.

### **3.2.2 CONSTRUCTION PROCESS**

A number of stakeholders requested information on the construction phase and provided feedback on this. Specific queries, feedback and requests for further information included:

- Requests for information on the cost of construction and how it would be funded;
- Requests for information on who is responsible for undertaking the construction, with some stakeholders advising of their negative experience with ESB during construction.
- Requests for information on the area required for construction (i.e., working area), and the approximate timeline for commencement and completion of the construction phase;
- The nature and extent of construction equipment and precautionary steps to avoid the spread of disease between farms;
- Concerns about damage to land during construction and requests for information regarding how tenants operating land will be compensated. Information was also requested on the timeline for land reinstatement following the construction phase;
- The storage of excavated soil and measures proposed to prevent contamination;
- The steps to be taken to prevent soil slippage;
- Details of the temporary construction site facilities that will be required and the number of construction workers on site at any one time; and
- The provision of security on site and details of insurance in the event an accident on site.



### 3.2.3 OPERATION

A number of submissions raised concerns about the operation and maintenance of the line following construction. Specific concerns included:

- Clearance from the ground:
  - A number of landowners raised concerns that the sag on the line would increase in wet weather and that this would lead to those working under the line being more susceptible to shocks; and
  - One stakeholder advised of being aware of persons receiving a “shock” from a disconnected electric fence and from a metal trailer which were close to an existing 400 kV overhead line. Also mentioned that it was possible to light a fluorescent tube by holding it up underneath a 400 kV line.
- The towers would attract lightning strikes;
- Safety concerns regarding the lines falling and in particular enquiries as to who is responsible if there is an accident due to a falling line;
- The health and safety of anglers using carbon fibre rods under the line;
- Whether there is heat generated from the line and how this would impact trees;
- Enquiry regarding the impact on radio frequency once the line is energised; and
- Enquiries as to how the pylons would be secured to prevent climbing on them.

## 4. SUBMISSIONS RELEVANT ENVIRONMENTAL IMPACT

Feedback of relevance to the Environmental Impact Assessment (EIA) stage in the project development process was received during this round of engagement. The majority of these relate to the potential impact of the proposed development on environmental concerns broadly covered by the following topics:-

- Agronomy;
- Community and Socio Economic Impact;
- Cumulative Impact;
- Cultural Heritage & Archaeology;
- Ecology;
- Health;
- Landscape & Visual Impact; and
- Noise;

### 4.1. AGRONOMY

A number of landowners raised concerns about potential farming restrictions that will apply to their land following the construction of the project. These stakeholders were concerned that the project would result in the sterilisation of farmland beneath and adjacent to the pylons and their lines.

Specific concerns included:

- Restrictions on slurry spreading under the line;
- Restrictions on the use of machinery in fields;
- Restrictions to growing crops and trees under the line and around the base of the structure, with one stakeholder referencing a study in England that found that an OHL influenced the quality of crops grown in proximity to them.
- Impact of the pylons and the line on grazing animals; and
- Restrictions on the construction of new farm buildings.

Other concerns included the potential impact on animal health. Specific concerns included:

- Impact on chicken houses - a number of stakeholders advised they understood that chicken houses could not be built within a specified distance of a 400 kV line;
- Impact on cows from the noise of the line and EMF with some stakeholders expressing particular concerns that the line would impact the fertility of their dairy cattle;
- Impact on fertility of pedigree cattle using artificial insemination; and
- Impact on bloodstock arising from EMF and the noise from the line.

Other stakeholders raised concerns about the proximity of the line to farm buildings including hen houses, sheep houses and cattle sheds.

## **4.2. COMMUNITY AND SOCIO ECONOMIC IMPACT**

A number of submissions raised concerns that the project will give rise to unrest within their communities with some advising that any landowner who allows a pylon will be in opposition to their community and that the project will result in divisions amongst neighbours.

Other stakeholders advised that the receiving community was not benefitting directly from the project. They raised specific concerns including the potential loss of students to schools in close proximity to the line and the impact on their communities during the construction phase, particularly referencing construction traffic.

A number of stakeholders expressed concerns that the project would negatively impact the businesses in the vicinity of the line route in particular those that depend on tourists. Furthermore, some stakeholders raised concerns about how the project could impact upon community and tourism amenities including fishing, clay shooting and camping.

Other stakeholders enquired how this project would benefit the local communities particularly during the construction phase and whether any employment arising from same would benefit their communities.

### **4.3. CUMULATIVE IMPACT**

Stakeholders raised concerns regarding the substation in Moyhill and the future development of lines in the area.

Other stakeholders raised concerns regarding the development and extension of wind farms in proximity to the line route.

### **4.4. CULTURAL HERITAGE AND ARCHAEOLOGY**

Concerns were raised regarding the project's potential impact on cultural heritage and archaeological sites in proximity to the line route. Specific sites that stakeholders felt should be considered by the project team included:

- 12<sup>th</sup> Century cemetery in Cruicetown;
- The Hill of Tara;
- Bective Abbey;
- Telltown;
- The Brittas Demesne;
- Archaeological sites in the vicinity of Muff;
- Local archaeological sites such as monuments and ringforts; and
- Sites of industrial heritage such as a flax mill.

Other stakeholders queried the diversion around the site of the Battle of Clontibret, advising that this does not attract tourists and that they felt that this diversion resulted in a greater environmental impact.

## 4.5. ECOLOGY

General concerns regarding wildlife in proximity to the line were expressed, in particular birds, bats and fisheries. Specific ecological sites and features that stakeholders felt should be considered by the project team included:

- The impact on hedgerows during the construction phase;
- The impact on birds, with stakeholders advising of their concerns for:
  - Whooper Swans and their flight patterns;
  - Impact on Curlew in the vicinity of the line;
  - Black Lake is a cormorant roosting site;
  - Swan flight paths from Borraghy to Lough Egish;
  - Lakelands including Lough Egish;
  - Claderagh Bog and associated Woodcock and its ability to attract birds given its high ecological value. The stakeholder advised that in their view this bog was of higher ecological value than the Cashel Bog, which the line route now avoids.
- Noise impacts on bats – referencing the Nicholls and Racey (2007) paper on the impact of OHL on bats; and
- The impact on a locally important brown trout fishery and spawning beds of Lough Mourne.

## 4.6. HEALTH

General concerns about the health impacts due to the presence of overhead powerlines, specifically in relation to Electric and Magnetic Fields (EMF), cancer, childhood leukaemia, and the impact on mental health including stress and depression, and human fertility were expressed. These concerns were typically raised in the context of the proximity of the proposed line route to the stakeholder's dwelling house or other receptors such as community facilities and schools.

A number of stakeholders suggested that health impacts could be avoided by putting the project underground.

Specific queries and concerns raised include:

- Requests for information on the health impacts of the existing 400 kV with some stakeholders advising that they felt that EirGrid has not adequately assessed the health impact and that the receiving community has not been provided with any assurances as to the long term safety of living in proximity to a high voltage OHL.
- Concerns were raised by certain members of the public regarding studies which they understand to show an impact of power lines on the health of communities particularly in terms of cancer, dementia and the incidence of miscarriage.
- Advised that they understood that EirGrid staff and other workers in Ireland and the UK could only spend a limited amount of time working under a powerline for health and safety reasons.
- A number of stakeholders raised concerns about the impact of the project on children with autism, and suggested that the cumulative effects of EMF in areas should be taken into account.
- A number of stakeholders raised concerns about the impact of overhead powerlines on pacemakers and requested information on restrictions for individuals with pacemakers in place in the vicinity of the proposed project.
- Reference was made to a paper by Dr. Neil Cherry on the Impact of EMF on melatonin production in humans.
- Stakeholders living in the vicinity of the existing 400 kV line from Moneypoint to Woodland advised that they had observed an increased incidence of health issues, including miscarriages, increase in cancer, and mental health issues amongst their families and across the wider community.

#### **4.7. LANDSCAPE & VISUAL IMPACT**

General concerns regarding visual impact and how the project would impact upon visual receptors, views of the countryside and the landscape quality of areas in proximity to the line were expressed by a number of stakeholders.

Stakeholders felt the line and associated structures would be unsightly and spoil the scenic views of the countryside resulting in adverse impacts on their community.

Specific concerns relating to landscape and visual impact received included:

- Stakeholders advised how they believed opposition to the project was due to the visual intrusiveness of the lines;
- Enquiries regarding the height of the structures were made;
- Numerous stakeholders expressed their specific concern regarding the potential proximity of structures to their dwelling houses and some advised how the project will be visible to them from all viewpoints from their dwelling house and/or farm;
- Adverse impacts on stakeholders panoramic views of the countryside which they stated will be affected by the tower structures;
- Stakeholders felt that EirGrid should look at the viewpoints from their dwelling house and requested EirGrid to visit their property. Furthermore, some stakeholders requested that a photomontage be produced by EirGrid from their property;
- Visual impacts on properties in the area of Drumlane;
- Some stakeholders felt that Monaghan was not a suitable location for the project given its elevated position and presence of hilly areas;
- Concern was raised from some stakeholders that structures would be positioned on the highest viewpoints within their area, with the highest peak near Shanco provided as an example; and
- Stakeholders enquired why planning applications for dwelling houses within the area had to be well buried within the landscape yet the proposed structures would be situated on elevated areas.

#### **4.8. NOISE**

Stakeholders expressed concerns regarding to the potential noise they felt the project would introduce to the areas in proximity to the line and associated structures.

Specific feedback relating to the issue of noise included:

- Stakeholders advised that they currently experience adverse noise impacts from 110kV lines close to their dwelling house, in particular during periods of rainfall when buzzing sounds are audible from their dwelling house.

- A number of stakeholders raised concerns about the impact of the project on children with autism, advising that a number of autistic children live in close proximity to the line route. The key concern raised in relation to autism was the impact of noise with specific reference to the impact of existing powerlines in the area.
- Some stakeholders requested further information to be provided to them including:
  - The noise chapter of the EIS;
  - Details on the noise levels of the project;
  - Details of the corona affect with some stakeholders advising how they felt noise would be audible from distances as far away as over 1km from the line route; These stakeholders queried what distances the noise would potentially be audible from;
- A number of stakeholders expressed their concerns relating to potential adverse noise impacts on their family, particularly when combined with the noise they already experience from existing lines in proximity to their dwelling house. The impact on autistic children in this context was particularly raised as a concern.
- Some stakeholders were concerned about the potential noise impacts particularly during night-time periods.
- One stakeholder who expressed concern regarding noise impacts also raised a concern relating to air quality issues.



## 5. SUBMISSIONS ON COMMUNITY GAIN

As set out in the *Final Re-evaluation Report*, EirGrid is actively considering how best to adopt community gain within transmission project development and the Grid25 programme in general. As part of this consideration, EirGrid is currently engaging with key stakeholders including the Department of Environment, Community and Local Government (DECLG), Department of Communications, Energy and Natural Resources (DCENR) and An Bord Pleanála (ABP).

A number of stakeholders provided feedback relating to community gain. In particular this feedback related to who should receive community gain and how it should be administered. Specific feedback received included:

- The community living in close proximity to the proposed line route should receive the community gain rather than large towns that are typically 10km away from the line route.
- The fund should not be managed by the local authorities; suggested alternative administrators of the fund included the Leader initiative, local community groups and the Heritage Council.
- The system of community gain in operation by another developer was suggested as a successful model for EirGrid to follow. Other community gain initiatives identified by stakeholders included restoration of monuments and funding of community publications.
- A community gain fund would not be required if the project was put underground
- It was suggested that all 110 kV lines should be undergrounded in compensation for this project

That community gain would lead to them accepting the project.

## 6. FEEDBACK ON OTHER ISSUES

### 6.1. PUBLIC ENGAGEMENT

A number of stakeholders requested additional information about the project and provided feedback on the participation process. The majority of project information requests related to mapping. In particular, a number of stakeholders requested specific maps detailing the indicative line and the distance from their dwelling house or other receptors.

A number of stakeholders also provided feedback relating to the public information events, the promotion of the engagement period, and the ability of stakeholders to influence the project development.

Specific points raised by stakeholders included:

- A request that EirGrid consider using text messages to provide updates on the project to stakeholders.
- A request that EirGrid hold additional events in local communities along the indicative line route. In addition Kingscourt, County Cavan was suggested as a more appropriate venue for future public information days in County Cavan.
- A number of stakeholders felt that EirGrid has already made its decisions, is undertaking a public relations exercise and is not interested in listening to the views of their community.
- A number of stakeholders advised that they were previously unaware of the project or had not been sent information on the project previously.
- Other stakeholders felt that the consultation undertaken to date was not valid as the indicative route is broadly similar to the previous application.
- Some stakeholders felt that communities affected by this project had not had the same opportunities to participate when compared with the other EirGrid projects (e.g., Grid Link and Grid West).

## **6.2. PLANNING**

A number of stakeholders enquired as to the planning process and who would determine whether the application would be granted or refused. Feedback was also provided on the previous application. A number of stakeholders felt that if the community objects to the project, ABP should not grant planning permission. A number of stakeholders felt that it was unfair that they had paid the fee to make a submission to ABP and that this was not refunded by EirGrid following the withdrawal of that application. Enquiries were also made about the planning process in Northern Ireland with some stakeholders suggesting that this project should be put on hold until NIE secures planning for the northern section of the line.

## **6.3. COMPENSATION**

A number of stakeholders enquired as to the amount of, and structure of, the compensation arrangements for this project. Some stakeholders considered that the current compensation arrangement - whereby only directly impacted landowners are compensated - was unfair and suggested that a compensation package should be available to residents in close proximity to the line. Other stakeholders suggested that an inconvenience payment be made to landowners to facilitate access to the lands. Enquiries were also made as to the compensation package on the Northern Ireland section of the line and it was also suggested that the compensation package for all landowners and residents on the entire project should be the same.

## **6.4. PROPERTY**

Stakeholders expressed concerns regarding impact on property values, loss of development potential and future development restrictions which may arise as a result of the project. Specifically some stakeholders requested clarification as to whether the project would impact their ability (and that of their family members) to obtain planning permission in the future. A number of stakeholders advised that as they felt that their property would be devalued, EirGrid should provide compensation.

## **APPENDIX G**

**TABLE 3.1, TABLE 3.2 AND TABLE 3.3 OF THE  
PREFERRED PROJECT SOLUTION REPORT**



### 3.4.1 Stakeholder Feedback

During the course of the previous application, feedback from key stakeholders (including prescribed bodies) included direct and indirect requests to review and consider modifications to the line route as proposed.

For example, one submission made subsequent to the submission of the previous application for approval, was received from the National Parks and Wildlife Service (NPWS) of the Department of Arts, Heritage and the Gaeltacht (a designated prescribed body). The NPWS submission raised issues relevant to EIA, ecological surveys and Article 10 of the Habitats Directive, which requires Member States to improve “*the ecological coherence of the Natura 2000 network, to encourage the management of features on the landscape which are of major importance for wild fauna and flora*”. As part of the re-evaluation process, EirGrid and its consultants have reviewed the submission and the potential implications for line design to be included as part of a new application for approval.

In this regard, existing guidelines<sup>13</sup> recommend that, as best practice, there should be ecological surveys undertaken of sites of known ecological importance (e.g., International, National and County value habitats) or potential ecological importance and/or sensitivities (e.g., hedgerows, woodlands and wetlands). The purpose of survey is to determine whether the proposed development has the potential to impact protected mammals or flora and to determine if/what specific mitigation may be required. A guiding principle for the line design of the North-South 400 kV Interconnection has been to seek to avoid any significant impact on sites of known ecological importance.

In the case of sites of potential ecological importance, site surveys and assessments have been carried out where possible. Where it has not been possible to secure access to lands to undertake such surveys, EirGrid is proposing to site the OHL structures away from areas of potential ecological importance (for example away from hedgerows and wetlands) and into adjoining managed agricultural fields, i.e., into a modified habitat where the ecological sensitivity is clearly low.

Modifications to the line design arising from the consideration of this particular environmental issue have resulted in the majority of tower structures being located in agricultural fields of low ecological importance and with sufficient separation distance from sites of potential ecological importance.

Feedback from other prescribed bodies was also reviewed and assessed as part of the re-evaluation process. Feedback directly or indirectly related to potential modifications to the line route is identified in **Table 3.1**, **Table 3.2** and **Table 3.3** below. The process of dealing with modification requests is set out in **Section 2.4**.

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<sup>13</sup>EirGrid’s Ecology Guidelines and Institute of Ecology and Environmental Management (IEEM) best practice recommendations. For more information go to: [www.eirgridprojects.com](http://www.eirgridprojects.com) and [www.ieem.net](http://www.ieem.net)

### 3.4.2 Landowner Feedback

In the context of the Preliminary Re-evaluation Report (published in May 2011), EirGrid and its consultants sought to engage with landowners along the indicative line route as identified in that Report. As a result, a small number of requests were made for the line route to be locally modified, with a specific focus on the siting of towers on individual landholdings. These requests have been considered in accordance with the process set out in **Section 2.4**. Some modifications have been adopted in the preferred line design as set out in this report.

Feedback from landowners included requests to place towers on field boundaries, in the corner of a field, at a distance to existing farm buildings or closer to the existing roadways within the landholding etc. Landowner feedback from the re-evaluation process has therefore influenced the preferred project solution. EirGrid intends to continue landowner engagement following the publication of this report, with a key emphasis on seeking, where possible, to locate infrastructure at locations in agreement with directly-affected landowners.

**Table 3.1 Issue/Suggested Modifications – Affecting the Overall Line Design**

Issue/Suggested for Modification	Locations	Submission Modification	Reference/Rationale for	Summary Findings of Assessment
This affects the majority of towers	Article 10 considerations	10	Re-evaluation process (ecology); consultation with prescribed body (NPWS)	<p>The line design has been modified to minimise potential impact on sites of potential ecological importance (including hedgerows and wetlands). This has been achieved by siting towers away from sites of potential ecological importance (including hedgerows and wetlands) and into adjoining fields.</p> <p>The majority of the line design for the North-South 400 kV Interconnection Development occurs across fields, comprising improved/managed farmland – a modified habitat where the ecological sensitivity is low.</p> <p><b>Outcome:</b> Modification incorporated as part of Preferred Project Solution.</p>
This affects several towers	Separation distances to dwellings	to	Re-evaluation process (amenity)	<p>The line design has been modified in several locations to maximise the lateral clearance from the centre of the proposed line route to the nearest point of dwellings.</p> <p><b>Outcome:</b> Modification incorporated as part of Preferred Project Solution.</p>



**Table 3.2 Issue/Suggested Modifications – Affecting the Line Design in the CMSA**

Issue / Suggested Modifications	Locations for Modification	Submission Reference / Rationale for Modification	Summary Findings of Assessment
<p>This affects several towers and line straights at various locations.</p>	<p>Drumlin locations throughout County Monaghan</p>	<p>Monaghan County Council in a submission in relation to the 2009 application prepared a tower by tower assessment of the line from an environmental perspective. The general conclusion was that they were querying why towers were at specific locations, particularly where they crossed higher drumlins.</p>	<p>The submission by Monaghan County Council has been reviewed in detail. In general, in siting towers within the landscape of County Monaghan, EirGrid has sought to (a) achieve a balance between technical and environmental constraints having particular regard to landscape issues and (b) minimise the number of structures.</p> <p>The CMSA is dominated by a drumlin landscape and any route corridor options and overhead line routes in this area will encounter this type of landscape. In the CMSA, towers are often placed on drumlins, more typically on the lower slopes, as a result of the routing conflicts that arise primarily as a result of seeking to maximise the distance from residential dwellings and occasionally to avoid small lakes.</p> <p>For example, this type of routing conflict occurs in the vicinity of Lough Egish between towers 157 and 166. More elevated drumlins occur in the townland of Brackly and Tullynahinnera with a contour height of approximately 225m. The line is routed on the lower slopes of drumlins in this area to avoid Lough Egish, the associated scenic route / viewpoint and Boraghy lake and the drumlin in the townland of Cooltrimegish which has a contour height of 205m.</p> <p>Whilst it would be possible to put towers on lower slopes, this would require a significant number of additional angle structures and increase the potential environmental impacts. Given the objective of minimising environmental impacts it is considered that the current design represents an appropriate balance between technical design and environmental issues.</p> <p>Further amendments would create additional environmental impacts and are not being proposed.</p> <p><b>Outcome:</b> No modification incorporated as part of Preferred Project Solution.</p>

Issue / Suggested Locations for Modification		Submission Reference / Rationale for Modification	Summary Findings of Assessment
<p><b>Note:</b> tower numbers have been revised. Both are indicated for clarity</p>			
<p><b>2009:</b> 111-125 <b>2013:</b> 103-117</p>	<p>Lemgare and Tassan Areas</p>	<p>Monaghan County Council; Feedback from Preliminary Re-evaluation Report.</p>	<p>The main issue in these particular cases is why the indicative route does not proceed in a straight line to where it meets the proposed NIE line at Lemgare and as a result passes through the Tassan and Derryhallagh areas.</p> <p>The main routing constraints in this area relate to dispersed rural housing, the identified site associated with the Battle of Clontibret and the area of higher ground in the Crossmore area. Whilst the full extent of the area associated with the Battle of Clontibret is not defined or protected, there is an area identified west of Clontibret which has an information board and associated amenity area. Having regard to this, it is considered that this constitutes a focal point for the battle site as there are no other identified sites. In this context it was considered that the line should avoid this area. Additionally, the area to the north around Crossmore has a marginally higher underlying elevation than the Tassan and Derryhallagh areas. Routing the line in these areas takes advantage of the slightly lower topography.</p>
<p><b>2009:</b> 99-118 <b>2013:</b> 110-131</p>	<p>Derryhallagh to Lemgare</p>	<p>Feedback from Preliminary Re-evaluation Report</p>	<p>As the line route in this area avoids potential impacts on a known cultural heritage/amenity area and minimises visual impacts in this area further amendments are not being proposed.</p> <p><b>Outcome:</b> No modification incorporated as part of Preferred Project Solution.</p>
<p><b>2009:</b> 107-110 <b>2013:</b> 119-123</p>	<p>Cashel Bog</p>	<p>Monaghan County Council. Feedback from 2009 application.</p>	<p>In County Monaghan, peatlands and fens were, in previous years, frequently found throughout the county. Over time these features became either worked out or drained resulting in their loss. As a result, there are a small number of remaining bogs and fens in the county. These are identified in the Monaghan Fen survey 2008.</p> <p>Whilst not formally designated for protection in a National context, Cashel Bog is identified as having the characteristics of a pNHA. It would be possible to span the most sensitive part of the bog area but to do so, it would be necessary to locate a tower within the less sensitive area of the bog. Based on its ecological characteristics, and also having regard to residential constraints, the line route in this area has been amended to locate the line outside the bog.</p> <p><b>Outcome:</b> The line has been diverted around the bog area as part of Preferred Project Solution.</p>

Issue / Suggested Locations for Modification		Submission Reference / Rationale for Modification	Summary Findings of Assessment
<p><b>Note:</b> tower numbers have been revised. Both are indicated for clarity</p>			
<p><b>2009:</b> 15-18 <b>2013:</b> 216-219</p>	Corlea Bog	Monaghan County Council. Feedback from 2009 application.	<p>Corlea bog is a small remnant of bog which is traversed by the line, however no structures are proposed to be located within any area of the bog, therefore there are no potential impacts on the bog. Therefore no amendments are being proposed in this area.</p> <p><b>Outcome:</b> No modification incorporated as part of the Preferred Project Solution.</p>
<p><b>2009:</b> 80-90 <b>2013:</b> 140-150</p>	Doohamlet	<p>Feedback from Preliminary Re-evaluation Report (FS-16); re-evaluation process.</p> <p>Granting of planning permission in Nov 2011 for a dwelling in the townland of Terrygreeghan, which is in the general Doohamlet area.</p>	<p>The main issue arising in this case is that the line route is more visible in this area as it crosses several drumlins. The considerations and conflicting constraints in routing the line through a drumlin landscape have been set out previously, such conflicts arise in routing the line in the Doohamlet area.</p> <p>Appendix B of the Final Re-evaluation Report outlines reasons why the indicative line route alignment in this area is considered to be most appropriate.</p> <p>As a result of balancing routing conflicts, it was considered that altering the route in this area would result in additional structures and increased visibility, therefore no significant line design modification is being proposed in this area.</p> <p>However, since the previous application in 2009, planning permission has been granted for a dwelling in the townland of Terrygreeghan which is in the general area around Doohamlet. In order to maximise the distance to this permitted dwelling it is proposed to amend the line to incorporate localised diversion.</p> <p><b>Outcome:</b> A modification has been incorporated as part of the Preferred Project Solution</p>
<p><b>2009:</b> 69-74 <b>2013:</b> 156-161</p>	Scenic Viewpoint at Lough Egish	Monaghan County Councillors. Feedback from a submission to the Oral Hearing 2010	<p>The main issue arising in this case is that it was suggested that the proposed development would create visual impacts when seen from the scenic viewpoint at Lough Egish.</p> <p>The current line route does not interfere with views of Lough Egish from the designated scenic route which is named "Scenic Views of Lough Egish" as it is located at distance of over 0.5km from this route. Modifications are not therefore considered necessary in this area.</p> <p><b>Outcome:</b> No modification incorporated as part of Preferred Project Solution.</p>

Issue / Suggested Locations for Modification		Submission Reference / Rationale for Modification	Summary Findings of Assessment
<p><b>Note:</b> tower numbers have been revised. Both are indicated for clarity</p>			
<p><b>2009:</b> 70-74 <b>2013:</b> 156-160</p>	<p>Townland of Brackley (by Cremorne) semi natural wetland complex (Tower 72)</p>	<p>Re-evaluation process (ecology)</p>	<p>As set out above in relation to Cashel Bog the semi-natural wetland is considered to be of ecological significance. Similarly, whilst it would be possible to span the most sensitive part of the wetland area it would be necessary to locate a tower within the less sensitive area. Based on its ecological characteristics the line route in this area has been amended to locate the line outside the wetland area.</p> <p><b>Outcome:</b> A modification has been incorporated as part of the Preferred Project Solution</p>
<p><b>2009:</b> 10-17 <b>2013:</b> 217-224</p>	<p>Lough an Leagh</p>	<p>Cavan County Council. Feedback from 2009 application.</p>	<p>The CCC submission requested that consideration be given to undergrounding in this area, having regard to the number of lines and the proposed substation.</p> <p>The scenic view point referred to in the submission, Lough an Leagh is approximately 2km west of the line route. It is an elevated area with extensive panoramic views. The visual assessment indicates that visibility of the line from this location would be confined long distance views of the upper portions of some towers, these would be difficult to discern against the background landscape. There is therefore no strong justification for undergrounding in the vicinity of Lough an Leagh.</p> <p><b>Outcome:</b> No modification has been incorporated as part of Preferred Project Solution. A photomontage from this viewing point shall be included in the EIS.</p>
<p><b>2009:</b> 15-22 <b>2013:</b> 212-219</p>	<p>Muff Cross Roads/Muff Fair</p>	<p>Cavan County Council; Dr Ciaran Parker. Feedback from 2009 application.</p>	<p>The location of Muff Fair, whilst of historical significance, is not designated for protection as there are no significant features of cultural heritage in this area. Notwithstanding this potential alternative options in this area were reviewed. Any alternative route would require additional structures. As dispersed residential dwellings are a significant constraint in this area, additional structures would make the line more visible in this area. Therefore no amendments are being proposed in this area.</p> <p><b>Outcome:</b> No modification has been incorporated as part of Preferred Project Solution.</p>

Table 3.3 Issue/Suggested Modifications – Affecting the Line Design in the MSA

Issue / Suggested Locations for Modification		Submission Reference / Rationale for Modification	Review
<p><b>Note:</b> tower numbers have been revised. Both are indicated for clarity.</p>			
<p><b>2009:</b> T.130 – 135</p> <p><b>2013:</b> T. 270 – 265</p>	Brittas Estate	Meath County Council. Feedback from 2009 application.	<p>Realignment options have been investigated in proximity to Brittas Estate in order to reduce the impact on this demesne.</p> <p>On balance given the achievement of the slightly reduced impact on the setting of the designed landscape, parkland and setting of Brittas House and reduced potential ecological impacts, it is recommended that a modification is made to the line design and be incorporated in the Preferred Line Route.</p> <p><b>Outcome:</b> Modification incorporated as part of Preferred Project Solution.</p>
<p><b>2009:</b> T. 135 – 144</p> <p><b>2013:</b> T. 265 – T. 256</p>	Whitewood House	Meath County Council; Irish Georgian Society. Feedback from 2009 application.	<p>Potential alternative options in this area were reviewed. However, if the line route is moved further to the west, it will impact on the setting of Cruicetown National Monument and Cruicetown House and demesne landscape. Any move to the east would result in a major rerouting in order to avoid Whitewood Lough, demesne and Nobber town.</p> <p><b>Outcome:</b> No modification incorporated as part of Preferred Project Solution.</p>
<p><b>2009:</b> T. 90 – 97</p> <p><b>2013:</b> T. 310 – 303</p>	Teltown	Meath County Council. Feedback from 2009 application.	<p>The DAU stated that the archaeological landscape is not currently referred to or protected in Irish legislation and current National Monuments Legislation does not allow for the protection of landscapes. Therefore the Zone of Archaeological Amenity (ZAA) at Teltown has no legislative basis. Whilst the Teltown area was therefore not included in the RMP, individual sites within the area are however included.</p> <p>These individual sites have been considered in the preferred line design and will continue to be a consideration in the formulation of the EIS. There will also be ongoing consultation with the DAU on this matter in advance of finalising the EIS.</p> <p><b>Outcome:</b> No modification incorporated as part of Preferred Project Solution.</p>

Issue / Suggested Locations for Modification		Submission Reference / Rationale for Modification	Review
<p><b>Note: tower numbers have been revised. Both are indicated for clarity.</b></p>			
<p>2009: T. 88</p> <p>2013: T. 312</p>	<p>Boyne Valley Drive</p>	<p>Faillte Ireland. Feedback from 2009 application.</p>	<p>Potential alternative options in this area were reviewed. However, there are other constraints in this area e.g., Trim Airfield and new planning applications for dwellings.</p> <p><b>Outcome:</b> No modification incorporated as part of Preferred Project Solution.</p>
<p>2009: T. 45A – 47</p> <p>2013: T. 357 -354</p>	<p>River Blackwater Valley</p>	<p>Meath County Council. Feedback from 2009 application.</p>	<p>The River Boyne and Blackwater are crossed at two locations by the preferred line route. Other possible route corridors (1 and 2) cross the River Boyne and Blackwater at three separate locations.</p> <p>A Screening for Appropriate Assessment Report was completed for the previous application. This Report confirmed that the proposed development would not adversely affect the integrity of the River Boyne &amp; Blackwater SAC.</p> <p><b>Outcome:</b> No modification incorporated as part of Preferred Project Solution.</p>
<p>2009: T. 58 &amp; T. 59</p> <p>2013: T. 343 -341</p>	<p>Dunderry</p>	<p>Feedback from 2009 application.</p>	<p>This change was considered in light of the amenity value of the area and in particular that of the Shamanic Healing Centre. This change is technically possible and balances the impacts on the demesne landscape, the energy healing centre, the impacts on Dunderry Village, views from the public roads and the graveyard.</p> <p><b>Outcome:</b> Modification incorporated as part of Preferred Project Solution.</p>
<p>2009: T.45 – 51</p> <p>2013: T. 358 – 350</p>	<p>Bective Abbey</p>	<p>Meath County Council and Failte Ireland. Feedback from 2009 application.</p>	<p>Potential alternative options in this area were reviewed. However, they are constrained as any movement to the east would impact the Draft Tara Skyrne LCA and any movement to the west is constrained by Trim Airfield.</p> <p>In addition the River Boyne and River Blackwater cSAC also required consideration and towers have been located in this area to minimise the impact on the cSAC.</p> <p><b>Outcome:</b> No modification incorporated as part of Preferred Project Solution.</p>



**APPENDIX H**

**COMMUNITY UPDATE BROCHURE**

**(JUNE 2015)**







## North-South 400kV Interconnection Development



# Community Update Brochure

June 2015



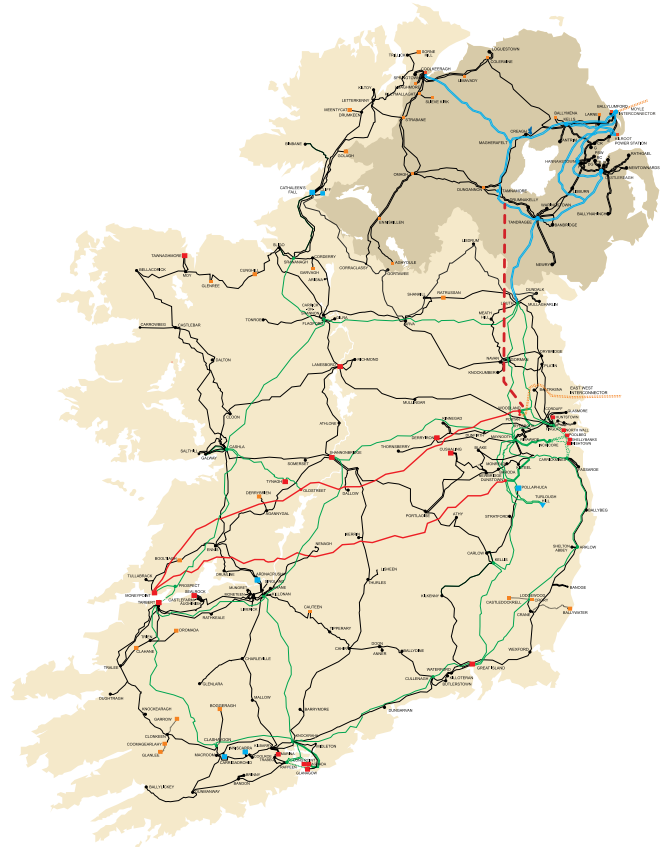
Part Funded by the EU-TEN-E Initiative

Application for Planning Approval to An Bord Pleanála

## Project Background

The North-South 400kV Interconnection Development is part of a strategic cross-border electricity transmission infrastructure scheme undertaken jointly by EirGrid and System Operator Northern Ireland (SONI) – the “proposed interconnector”. The application for planning approval by EirGrid to An Bord Pleanála relates to that portion of the overall proposed interconnector within Ireland (which runs through counties Monaghan, Cavan and Meath) from the existing ESB 400kV substation at Woodland, County Meath to the border at Lemgare, County Monaghan.

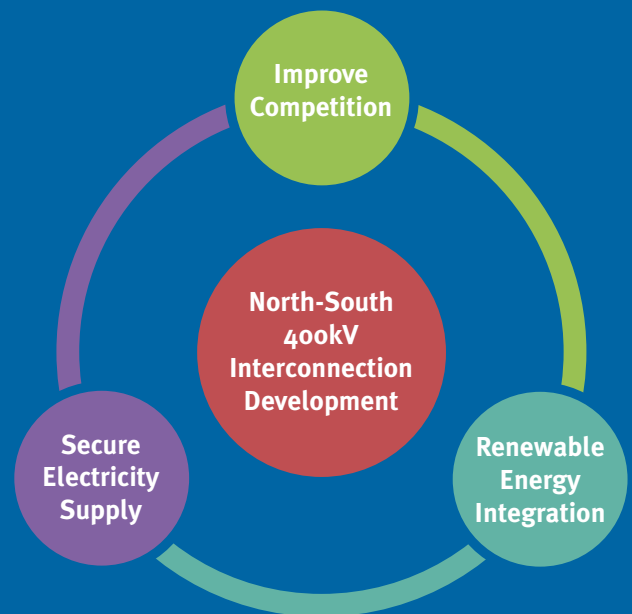
The application by SONI for that portion of the proposed interconnector in Northern Ireland (from the border to a planned substation on the Northern Ireland transmission network, in Turleenan, County Tyrone), is currently with the DOE Planning Service in Northern Ireland.



## Project Drivers

The project will provide a second high-capacity interconnector between the two transmission systems on the island of Ireland, delivering benefits to householders, communities, businesses and the economy.

- Improve competition – the proposed interconnector will improve the efficiency of the all-island single electricity market.
- Secure supply of electricity – enhance the security of the electricity supply throughout the island of Ireland which is essential for economic growth, the creation of jobs and improving the standard of living and quality of life for all.
- Help Ireland meet its 40% renewable electricity target – allow more renewable energy to be connected to the electricity network, reducing our production of greenhouse gases and our reliance on imported fossil fuels.



# EirGrid is Submitting its Application for Approval to An Bord Pleanála

EirGrid is in the process of submitting an application for approval to An Bord Pleanála for the North-South 400kV Interconnection Development. A ten week period of statutory public consultation will commence one week after the date of submission. This brochure provides a summary of the planning process and the documents that EirGrid is submitting to An Bord Pleanála.

An Bord Pleanála is the competent authority responsible for assessing and determining applications for strategic infrastructure developments. If you wish to make a submission in relation to the application for approval you can do so in writing to An Bord Pleanála directly. An Bord Pleanála has the discretion to conduct an oral hearing during which members of the public may also make submissions and observations with regard to the project.

The development comprises:

- A new single-circuit 400kV overhead transmission line in counties Monaghan, Cavan and Meath
- Modifications to three existing 110kV overhead lines
- A new 400kV circuit along the unused northern side of the Oldstreet to Woodland 400kV line
- Associated works within and immediately adjacent to the existing Woodland substation in Meath
- An associated temporary materials construction storage yard in County Monaghan
- Associated permanent and temporary construction and excavation works

In March 2015 EirGrid published a proposed line route for the project that forms the basis of the planning application to be submitted to An Bord Pleanála. The line design has taken into account requests from stakeholders, mostly landowners, for localised changes to the line design. These were evaluated in accordance with the criteria set out in the Preferred Project Solution Report, published in July 2013, and many were accommodated. The proposed line route is described in a series of maps contained in **Volume 3B Figures** of the EIS. These detailed maps show the location of all towers (intermediate, angle and transposition) in addition to many of the constraints that the proposed line seeks to avoid.

## Mitigation Measures

The proposed mitigation measures are extensive. The EIS and NIS should be reviewed for a full understanding of the measures proposed in relation to the development. By way of example, these include a Construction Environmental Management Plan; Traffic Management Plan; appointment

of a wayleave agent; appointment of an ecological clerk of works; temporary silt screens; controlling work practices; supervision of construction works; and appointment of a project archaeologist.

## Public Display

**The application documentation, including the Environmental Impact Statement (EIS) and Natura Impact Statement (NIS), will be placed on public display during the ten week period of public consultation as follows:**

### On-line:

The application documentation (including the EIS and NIS) may be viewed/downloaded at [www.eirgridnorthsouthinterconnector.ie](http://www.eirgridnorthsouthinterconnector.ie)

### Hard copies may be viewed at the offices of:

- An Bord Pleanála, 64 Marlborough Street, Dublin 1
- Meath County Council, County Hall, Navan, County Meath
- Cavan County Council, Cavan Courthouse, Farnham Street, Cavan, County Cavan
- Monaghan County Council, County Offices, The Glen, Monaghan, County Monaghan

### EirGrid Project Information Centres:

- **Navan Information Centre**, 10a Kennedy House, Kennedy Road, Navan, County Meath **every Tuesday and Friday between 12 noon and 7pm.**
- **Carrickmacross Information Centre**, Carrickmacross Workhouse, Shercock Road, Carrickmacross, County Monaghan **every Monday and Thursday between 12 noon and 7pm.**
- **Cootehill Information Centre**, Cootehill Enterprise & Technology Centre, Cootehill, County Cavan **every Wednesday between 12 noon and 7pm.**

In addition, the Navan, Carrickmacross and Cootehill Information centres will be open every day between **12 noon and 7pm** for the following two weeks:

- **Tuesday 16th to Monday 22nd June 2015 between 12 noon and 7pm.**
- **Monday 17th to Friday 21st August 2015 between 12 noon and 7pm.**

## Submissions/Observations

Submissions and/or observations in relation to the application for the proposed development may be made in writing **only** to An Bord Pleanála, from Tuesday 16th June to Monday 24th August 2015, and shall be accompanied by the statutory fee of €50.

### Post:

An Bord Pleanála, 64 Marlborough Street, Dublin 1.

# Guide to the Planning Application Documents

The application documentation is presented in five volumes, all of which are available for review at the specified locations as detailed on the previous page. In addition, the application documentation is available in the Irish language at each of these locations.

## VOLUME 1 Statutory Particulars and Drawings

- Volume 1A** Statutory Particulars – Notices, Forms, etc.
- Volume 1B** Planning Drawings (showing proposed development)

## VOLUME 2 Reports

- Volume 2A** Planning Report
- Volume 2B** Public and Landowner Consultation Report
- Volume 2A** **Appendices** associated with the Planning Report
- Volume 2B** **Appendices** associated with the Consultation Report

## VOLUME 3 Multi-Volume EIS VOLUME 3A & 3B

- Volume 3A** Non-Technical Summary
- Volume 3B** Common Chapters (CMSA & MSA)

**Volume 3A Non-Technical Summary** provides a non-technical summary of Volumes 3B, 3C and 3D.

**Volume 3B Common Chapters** is a document which deals with strategic issues arising in respect of the proposed development, including Consideration of Alternatives, Cumulative Impacts and Impact Interactions and Transboundary Impacts

- 01** Introduction
- 02** Strategic Need

- 03** Scoping the EIS
- 04** Transmission & Technology Alternatives
- 05** Route Alternatives
- 06** Description of Development – Transmission Circuit and Substation Works
- 07** Construction
- 08** Electric Magnetic Fields (EMF)
- 09** Transboundary
- 10** Cumulative and Impact Interactions
- 11** Summary of Mitigation Measures

**Volume 3B** **Appendices** associated with Volume 3B.

**Volume 3B** **Figures** including the 1:5,000 mapping for the proposed development at A1 scale.

## VOLUME 3 Multi-Volume EIS VOLUME 3C & 3D

**Volume 3C** Cavan Monaghan Study Area (CMSA)

**Volume 3D** Meath Study Area (MSA)

**Volume 3C of the EIS considers the Cavan Monaghan Study Area.** This volume provides an appraisal of the proposed development from the area of two crossing points of the jurisdictional border with Northern Ireland at Lemgare, County Monaghan to the townland of Clonturkan, County Cavan.

**Volume 3D of the EIS considers the Meath Study Area.** This volume provides an appraisal of the proposed development, from the townland of Clonturkan, County Cavan to the existing Woodland 400kV Substation in County Meath.

Volume 3C and Volume 3D each contain the following individual chapters specific to the particular study area being focused on in each volume:

- |  |   |
|--|---|
| <b>01</b> Introduction                           | <b>07</b> Soils, Geology and Hydrogeology |
| <b>02</b> Human Beings – Population and Economic | <b>08</b> Water                           |
| <b>03</b> Human Beings – Land Use                | <b>09</b> Air – Noise                     |
| <b>04</b> Human Beings – Tourism and Amenity     | <b>10</b> Air – Quality and Climate       |
| <b>05</b> Human Beings – EMF                     | <b>11</b> Landscape                       |
| <b>06</b> Flora and Fauna                        | <b>12</b> Material Assets – General       |
|  | <b>13</b> Material Assets – Traffic       |
|  | <b>14</b> Cultural Heritage               |

**Volume 3C** **Appendices** associated with Volume 3C

**Volume 3C** **Figures** associated with Volume 3C

**Volume 3D** **Appendices** associated with Volume 3D

**Volume 3D** **Figures** associated with Volume 3D

## VOLUME 4 Joint Environmental Report

This report is a summary of the overall proposed interconnector from Turleenan, County Tyrone to Woodland, County Meath, jointly prepared by EirGrid and SONI, and focussing primarily on environmental issues, including transboundary impacts and cumulative effects. The SONI Consolidated Environmental Statement (ES) and Consolidated ES Addendum is included as an appendix to this report.

## VOLUME 5 Natura Impact Statement (NIS)

This is a document prepared pursuant to the requirements of the Habitats Directives to inform the appropriate assessment (AA) to be carried out by An Bord Pleanála as to the likely impacts of the proposed development on a European site or sites.

## About EirGrid

EirGrid, a state-owned company, is the national operator of the electricity transmission grid.

The national transmission grid is an interconnected network of high-voltage power lines and cables, comparable to the motorways, dual carriageways and main roads of the national road network. It is operated at three voltage levels; 400kV, 220kV and 110kV and is approximately 6,400km in overall length within Ireland.

It is the backbone of Ireland's electricity system and is vital to ensuring that all industrial, commercial and residential customers from both rural and urban areas have a safe, secure, reliable, economic and efficient electricity supply.

## Contact Details

For further information about where the application or maps are on display or to purchase documents please contact the project team as follows:

**Phone:** Lo-call **1890 25 26 90** (9am to 5pm Monday to Friday)

**Email:** [northsouth@eirgrid.com](mailto:northsouth@eirgrid.com)

**Website:** <http://www.eirgridprojects.com/projects/northsouth400kvinterconnectiondevelopment>

**Please note, submissions and/or observations in relation to the application for planning approval should NOT be sent to EirGrid but should be made directly to An Bord Pleanála, 64 Malborough Street, Dublin 1 by 5.30p.m. on Monday 24th August 2015.**

Printed copies of the full application, or parts thereof, can be obtained at a price not exceeding the reasonable cost of making a copy upon request. Copies are available in both the English and Irish languages.



# The North-South 400kV Interconnection Development Proposed Line Route June 2015

