

Public Acceptance of Electric Power System Infrastructure

A. CORCORAN
EirGrid
Ireland

SUMMARY

EirGrid, Ireland's Transmission System Operator, has embarked on an unprecedented major investment programme known as Grid25- *A Strategy for the Development of Ireland's Electricity Grid for a Sustainable and Competitive Future* [1], to develop a fit for purpose transmission grid which will provide the capacity to facilitate the development of renewable energy sources, allow for long term growth in the demand for electricity, allow for further interconnection to other jurisdictions and ensure the operation of the All Ireland electricity system.

Public acceptability is one of the main barriers to the development of transmission infrastructure. EirGrid recognises that such strategic National and regional-scale infrastructure can impact on individuals and local communities. EirGrid acknowledges that there may arise legitimate community interest in, or concerns regarding, such development, notwithstanding the necessity for such infrastructure, or EirGrid's exclusive function to develop the National Grid. This may derive from the fact that it is often difficult to appreciate any local benefit in developing such strategic infrastructure, yet that infrastructure must be located in, or pass through, local areas.

The requirement for public consultation is an essential part of the legislation in Ireland governing the development of strategic infrastructure (The Planning and Development Act 2010 [2]). The permitting authority (An Bord Pleanála) is essentially a 'one stop shop' for assessing proposed strategic developments, including transmission developments in Ireland, and examines as part of its duties the consultation undertaken by developers.

EirGrid has had considerable experience in relation to public consultation on transmission developments in recent years and the public consultation model has evolved as a result of this. In particular, the North South 400 kV project had an intensive amount of public consultation, in the period from 2007 to 2009. The public consultation model employed on the project evolved and improved as the project proceeded.

It is EirGrid's stated policy and practice to ensure that the consultation and engagement experience for communities and other stakeholders occurs, insofar as is reasonably practicable, in an open, structured, accessible, and transparent manner and the inputs of stakeholders are taken into account in developing the transmission networks. Therefore, as a result of the experiences gained from the North South 400 kV project EirGrid developed its public consultation roadmap – *Project Development and*

SUMMARY (Continued)

Consultation Roadmap [3] - a five stage process which takes a project from inception through to construction phase and which has public involvement at all stages. The purpose of the new consultation model is to 1) achieve greater public acceptance of electric transmission infrastructure 2) aid in obtaining planning permits and 3) ensure consistent application of project communication across all EirGrid projects in all parts of the country.

This consultation process is now being employed on major transmission developments – one example being the Clashavoon – Dunmanway 110 kV line, and feedback gained during the process has helped shape the final proposal which was presented to the permitting authority.

This paper presents the context, consultation experience on the North – South 400 kV project, describes EirGrid's *Project Development and Consultation Roadmap* and experience in its use on the Clashavoon - Dunmanway 110 kV line.

KEYWORDS

Public Consultation, high voltage, transmission, planning process

Background and Context

EirGrid, the Transmission System Operator for the Republic of Ireland has the exclusive statutory function to operate and maintain, and develop a safe, secure, reliable, economical and efficient electricity transmission system, and to explore and develop opportunities for interconnection of its system with other systems, in all cases with a view to ensuring that all reasonable demands for electricity are met and having due regard for the environment.

In pursuing this function, EirGrid has embarked on an unprecedented major investment programme to develop a fit for purpose National transmission grid, which will provide the capacity to facilitate the development of renewable energy sources, allow for long term growth in the demand for electricity, allow for further interconnection to other jurisdictions, and ensure the operation of the All Ireland Electricity Market.

In this context, in October 2008, EirGrid published a high-level long-term strategy for the development of the National Grid – known as Grid25- *A Strategy for the Development of Ireland's Electricity Grid for a Sustainable and Competitive Future*. This strategy provides a context and approach to grid development over the next decade and beyond; it provides a scale to the necessary infrastructure required at a National and regional level. As statutory undertaker in this regard, EirGrid will progress network development to meet anticipated needs, in reference to, and in line with, the Grid25 strategy. The total investment cost of the Grid25 strategy is estimated at €3.2 billion (end 2011).

Figure 1 shows the existing transmission network in Ireland and also indicates the areas, both onshore and offshore, driving network development in future years.

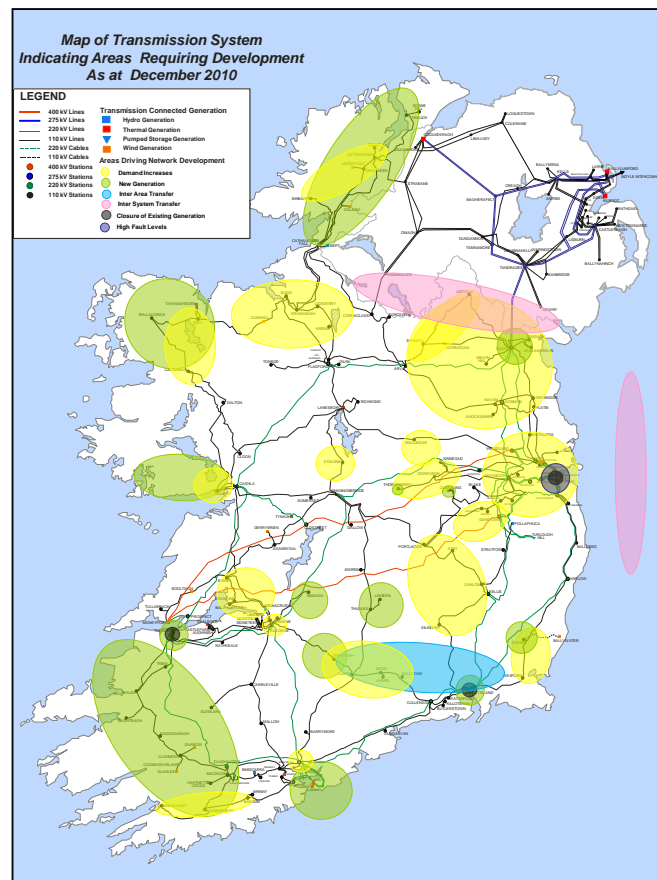


Figure 1- Ireland's Transmission Network and areas requiring future development

Grid25 identifies the critical requirement for significant development of electricity transmission infrastructure, often in regions and areas where no such infrastructure currently exists. EirGrid recognises that such strategic National and regional-scale infrastructure can impact on individuals and local communities. EirGrid recognises that legitimate community interests, or concerns and opposition may arise regarding the development proposals brought forward by EirGrid. This is generally because of the fact that it is often difficult to appreciate the local benefit which will accrue in developing strategic infrastructure, which passes through local areas.

The current EirGrid strategy with respect to public consultation evolved following experience gained between 2007 and 2009 on the North South 400 kV project. It is now being published both as a detailed process as a guide for EirGrid's project managers and consultants to be used on a consistent basis for all transmission projects and in a more high level format for the general public to ensure they are aware of the procedures that EirGrid will use in bringing transmission projects through the public planning process and the accompanying consultation processes.

Strategic Infrastructure Act and Bord Pleanála

In 2006, the Strategic Infrastructure Act [4] was brought in to provide for a streamlined planning consent procedure for "strategic infrastructure developments". The aim of this act is to speed up the planning consent procedure for projects of strategic importance by appointing the independent planning appeals board in Ireland, An Bord Pleanála, as a 'one stop shop' for determining projects of strategic significance. Under the Strategic Infrastructure Act 2006, projects must satisfy one or more of the following criteria in order to be considered by the Bord as strategic infrastructure:

- The development would be of strategic economic or social importance to the State or the region in which it would be situate;
- The development would contribute substantially to the fulfillment of any of the objectives of the National Spatial Strategy or any regional planning guidelines in respect of the area or areas in which the development would be situate;
- The development would have a significant effect on the area of more than one planning authority.

Major linear transmission developments generally fall under the umbrella of the Strategic Infrastructure Act, and therefore applications for a permit go directly to An Bord Pleanála. The engagement in a public consultation process is a requirement of the Strategic Infrastructure Act but in any case is seen as best practice by EirGrid.

North South 400 kV Project.

The North - South 400 kV project involves the construction of a 140 km long 400 kV overhead transmission line between an existing 400 kV substation, Woodland, in the Republic of Ireland and a new substation, Turleenan, located in Northern Ireland. The purpose of the new transmission line is to facilitate cross-border sharing of electricity, facilitate better competition in the All Island electricity market, and to ensure a future secure supply of electricity throughout the North East Region in the Republic of Ireland. This project is being undertaken in co-operation with Northern Ireland Electricity (NIE).

Public consultation on the project started in September 2007.

At the beginning of the consultation process, EirGrid aimed to identify and contact as many potential stakeholders as possible. These included:

- People living and working in the area
- Community groups
- Interest groups
- Strategic stakeholders
- Local and national elected representatives
- Statutory consultees

- Local and national media
- All other interested parties

Every effort was made to provide as much information as possible to the stakeholders and to ensure that every possible opportunity was provided for them to engage in the consultation process. EirGrid provided multiple methods of consultation for all types of stakeholders on the North South 400 kV project. These included the holding of open days and small group meetings, the opening of information centres, leaflet drops to residences along the route of the proposal, the publication of various reports compiled as part of the permitting process, the provision of a phone line service, and email service, a dedicated web site and the publication of information in the media.

The primary purpose of the consultation process was to:

- Provide members of the public with accurate, up to date information on the development ;
- Provide opportunities for the public to input into each phase of the route selection process and to raise issues or concerns with any of the corridor options presented ;
- Keep the public informed of the route selection process as it progressed ;
- Address directly, with appropriate experts, the issues, questions, and concerns that stakeholders had in relation to the project ; and
- Ensure, within reason, that all relevant stakeholders were aware of the development and had an opportunity to have their inputs taken into account.

The North South 400 kV project stages and associated consultation strategy was broken down into a series of phases. These phases and methods evolved throughout the course of the project's development in order to address the perceived needs of the stakeholders and to respond to their requests.

There was an enormous amount of learning and experience gained from the public consultation process on the North South 400 kV project. EirGrid therefore decided that it must have a consistent process that it could apply to all high voltage transmission projects to ensure that there was clarity for the project managers and consultants who are involved in the particular projects and transparency in the process for all stakeholders affected by the transmission development particularly for members of the general public. This resulted in the development of EirGrid's *Project Development and Consultation Roadmap*.

EirGrid's Project Development and Consultation Roadmap

As stated previously the *Project Development and Consultation Roadmap* (hereafter referred to as the *Roadmap*), see Figure 2, evolved from the experiences gained in the North South 400 kV project. The purpose of the *Roadmap* was to facilitate a clear and transparent process for implementing projects under the Grid25 strategy and to ensure landowners, the public and other stakeholders are involved in the ongoing development of a project. This *Roadmap* outlined the four key stages which are applied to Grid25 projects prior to a planning application being submitted to the relevant planning authority. A fifth stage addresses post-consent construction of electricity projects.

Through all stages of the process, all stakeholders are kept informed about the project. Communication with the public can vary from interactive open days where information is gathered about the study area to community update brochures and newspaper notices that illustrate the progression of the project. A project specific website is set up for each project where up to date information about the project is available such as study maps, reports from each stage of the process and more generally information about health and safety of transmission lines.

The emphasis of the *Roadmap* is that planning, environmental and community issues are identified from the earliest stage of a project and that the process of project development occurs in tandem with early and ongoing consultation and engagement with interested parties. As all projects are different, there is no "one size fits all" process for transmission infrastructure development. All issues, decisions

and solutions are subject to a framework that contains key project objectives, milestones and points for public engagement with the project teams.



Figure 2 - Project Development and Consultation Roadmap

The five stages are described in more detail below:

Stage One – Information Gathering

This is the earliest stage of project development, where the scope of the project begins to be defined. The need and justification for the project is illustrated and a broad study area is defined in which the project might occur. The need of the project is kept under review throughout the development on the project. The focus at this stage is on gathering environmental and other information to inform and shape the project. Sensitive areas are identified and mapped such as designated or protected landscapes (Special Protection Areas (SPAs), Special Areas of Conservation (SACs), National Heritage Areas (NHAs)), protected views, areas that may not be protected but have scenic, amenity, ecological and cultural value. This stage does not involve making binding decisions, but simply gathering as much information as possible to ensure a balanced outcome later in the process. As part of the information gathering process the public are informed of the project through newspaper advertisements and open days and any feedback generated is used in Stage Two.

Stage Two – Evaluate Options

Stage Two is where decisions begin to be made and endorsed by EirGrid. All feedback is considered from public and stakeholder consultation provided through submissions and open days in Stage One. This stage focuses on evaluating options, which may include modifications to a project arising from public consultation. There remains scope for subsequent public feedback to influence key decisions.

The results of all consultations, together with the studies carried out to this point, are used to identify the preferred route – the option that offers the best balance between technical, environmental, socio-economic and cost issues. In doing this we seek to avoid as far as possible any impacts of people, settlements, and environmentally-sensitive areas. This stage involves identification of, and early engagement with, landowners along the identified preferred project option.

Stage Three – Confirm Design

This stage usually occurs in parallel with Stage Four (see below). In this stage, feedback from stakeholders from Stage Two inform the decisions being made by EirGrid with regard to the specific location and preliminary site/route design for the project. The focus is on land and site-specific

technical and environmental surveys and assessment, in dialogue with landowners. A full environmental assessment is also carried out on the preferred transmission line route alignment which will be submitted to the appropriate Competent Authority (usually An Bord Pleanála, but in some cases the relevant planning authority) as part of the application.

Stage Four – Prepare Planning Application

Stage four usually occurs in parallel with stage three. In this stage, an application is prepared and submitted to the appropriate Competent Authority as described above. The focus of this stage is on finalising details of the proposal and preparing documents necessary for the proposed application.

Stage Five – Planning Approval

Finally, if the application for the proposed transmission development is successful, planning approval will be granted. At this stage, construction plans are prepared and public and landowner communication is ongoing.

Clashavoon - Dunmanway 110 kV Project – Public Consultation

The project consists of 28 km of new 110 kV overhead line to be constructed between two existing substations in the southern part of Ireland (Figure 3). It was decided that the project would start from first principles under the EirGrid *Project Development and Consultation Roadmap*.

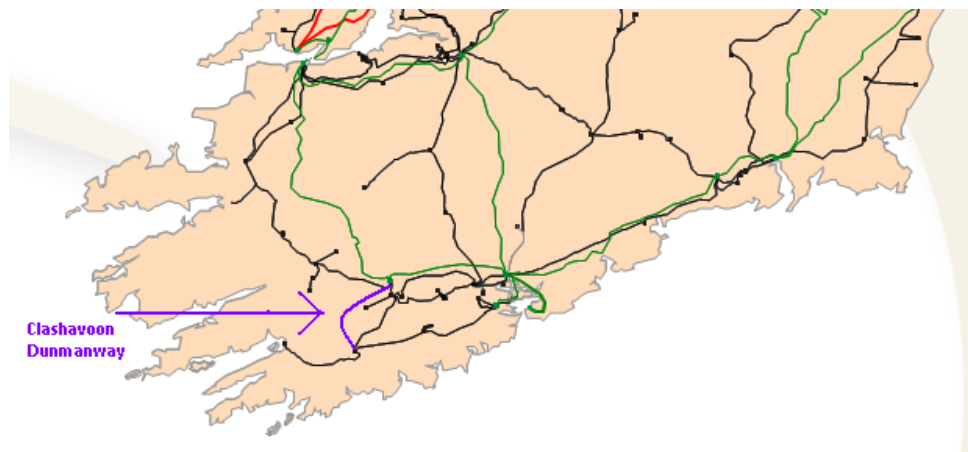


Figure 3 – Geographic location of the proposed Clashavoon – Dunmanway 110kV line

Stage 1 was completed in October 2010 following a public consultation process which included significant media advertising and interviews and two open days for government elected representatives, local councillors and members of the public (Figure 4). At this point the Stage 1 Report was published and it presented the emerging preferred corridor within which to site the proposed new circuit. The publication of the report was intended to encourage meaningful consultation between the project team and all interested parties, including members of the public.

Following consultation with landowners and the general public a number of modifications to the emerging preferred route corridor were identified. All modifications identified were reviewed and assessed by the project team and where possible accommodated. Where any identified modification could not be accommodated, an explanation was given as to why this was the case. One modification to the emerging preferred route corridor which was accommodated was as a result of a recorded sighting of whooper swans feeding on grasslands approximately 2 km south of Clashavoon 110 kV substation. There were no previous records of this site in published literature and project consultees had not reported whooper swans in this area. It was the recommendation of the ecological consultant that the preferred route corridor be modified to avoid routing between feeding and roosting sites.



Figure 4 – Open day on the Clashavoon - Dunmanway 110 kV Overhead line project

Stage two was completed in August 2011 with the publication of the Stage two report, a third open day and four information days for all members of the public. The primary objective of Part A of the Stage two report was to detail the evaluation process that had been undertaken in order to confirm the emerging preferred route corridor for the project. The primary objective of Part B of the Stage two report was to present the indicative line route within the identified emerging preferred corridor and to outline the procedure by which landowner identification and engagement occurred in respect of the indicative line route. Following consultation with landowners and the general public a number of modifications to the indicative line route were identified. One modification to the indicative line route which was accommodated was a diversion of the line around the back of a landowner's farm to avoid routing the line through the central hub of the farm and in proximity to farm buildings and the family home. This diversion was acceptable from a planning and environmental perspective.

In Stage three EirGrid engaged with landowners to confirm the design of the overhead line across their land holdings and the final pre-application consultation meeting took place with An Bord Pleanála in October 2011. The parallel Stage four process was completed with finalisation of the Environmental Impact Assessment and the planning application. The application was lodged with An Bord Pleanála in February 2012. A decision on the application and associated start of construction (Stage five) is expected during the summer of 2012. Landowner consultation will continue during this phase of the project as well.

The execution of the *Project Development and Consultation Roadmap* for the Clashavoon - Dunmanway 110 kV project has been a success to date. There has been significant interaction with local communities, the general public, landowners and other stakeholders. The process has been open and transparent. It has assisted in the production of a robust planning application, particularly ensuring that local environmental, routing and other issues have been considered in the application thus potentially avoiding delays that could be caused by an incomplete application.

Conclusion

EirGrid accepts that local individual and community concerns will always occur and opposition to the development of the transmission networks is likely, due to vested interests, legitimate concerns, local community activism, or the prevalence and use of incorrect or misleading information, readily obtainable from internet sources. It is necessary therefore for EirGrid to constantly present a consistent and transparent process for the ultimate identification of a proposal – the method for consideration of alternatives, and the decisions that shape the nature and extent of that proposal.

It is envisaged that, over time, the consenting authority – An Bord Pleanála – will become increasingly familiar and comfortable with EirGrid's *Project Development and Consultation Roadmap* strategy

(Figure 2). This approach enhances public input into a project – indeed this is a corner-stone of the Roadmap as it sets public concern, input and feedback, into a reliable and factual context and will encourage greater public acceptance of projects.

It is in this context, and the context of commencing an ambitious envisaged 15-20 year programme of transmission infrastructure development involving many individual projects, that EirGrid considers that having an consistent, open and transparent consultation process which in its view is in accordance with best practice, will assist in the achievement of planning permits and the implementation of these critical transmission infrastructure projects.

BIBLIOGRAPHY

- [1] EirGrid Grid25- *A Strategy for the Development of Ireland's Electricity Grid for a Sustainable and Competitive Future*, October 2008.
- [2] Department of Environment, Community and Local Government. Planning and Development (Amendment) Act. July 2010
- [3] EirGrid, Project Development and Consultation Roadmap, December 2010
- [4] Department of Environment, Community and Local Government. Planning and Development (Strategic Infrastructure Act), July 2006