

# MEATH – CAVAN 400kV TRANSMISSION LINE CAVAN – TYRONE 400kV TRANSMISSION LINE

# STRATEGIC PLANNING CONTEXT REPORT

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# **Strategic Planning Context Report**

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#### 1.0 INTRODUCTION

- 1.0.1 RPS has been engaged by EIRGRID to provide strategic planning guidance in respect of the provision of the planned Cavan-Tyrone 400kV Interconnector Project, and a 400kV transmission line connecting the existing 400kV Woodland Station near Batterstown, Co. Meath, including a new sub-station near Kingscourt Co. Cavan.
- 1.0.2 These proposals are elements of an overall strategic project to strengthen the security of electricity supply to the island of Ireland. For convenience, the overall strategic infrastructure project is being considered as 3 separate, but inter-related elements:-
  - The Northern Ireland Project: Tyrone (Turleenan) to the Border
  - The Cavan-Border 400 kV Interconnector project
  - The Kingscourt –Woodland 400 kV transmission line project
- 1.0.3 This Report is intended to set out the Strategic Planning and Development Context for the proposed development of this strategic electricity transmission infrastructure. It considers the overall strategic need for the project, including the context of this development as part of an all-island infrastructure project; it considers the legislative context for the specific proposed development; it outlines the local, regional and National Statutory and Strategic planning context for the development; finally, it suggests for discussion a procedural path through the consents process. The intent is that a detailed understanding of the strategic planning and development framework for the proposed development might feed into a wider strategic roadmap to ensure the successful realisation of the proposal.
- 1.0.4 This document is intended to provide an understanding and overview of the strategic and key statutory planning issues arising with the proposed development of the proposed project. It does not address in any detail more site specific matters, such as local land uses, physical constraints, or the wider planning and development history in the vicinity of route options such as would influence the alternative route selection. These issues will be considered separately and in more detail, in the context of a subsequent route options constraints and appraisal process.

# 2.0 THE EVOLUTION OF THE PROJECT - STRATEGIC INFRASTRUCTURAL NEED

2.0.1 At the outset it must be understood that the current project has evolved over a considerable period of time, in response to a long-recognised deficiency in strategic transmission infrastructure in the expanding north-eastern region, and separately, the need to ensure security of electricity supply to the island of Ireland. The various issues arising are summarised in detail below.

#### 2.1 The History of Interconnection on the Island of Ireland

- 2.1.1 Until 1970, the island had two separate electricity systems, one in Northern Ireland and one in the Republic. The transmission networks in both jurisdictions are constructed using overhead lines except in some urban areas. In the Republic, the 400 kV and 220 kV networks form the backbone of the transmission network, facilitating connection from larger and more efficient generators. The 400 kV network provides a high capacity link between the Moneypoint generation station on the west coast and Dublin on the east coast. The 220 kV network forms a number of single circuit loops around the country. The 110 kV network is the most extensive element of the grid reaching into each country in the Republic of Ireland.
- 2.1.2 The Northern Ireland transmission network is constructed as 400 kV double circuit steel tower lines, but is operated at 275 kV. These lines mainly form a loop from a number of power generation stations in the east of Northern Ireland around Lough Neagh. There is a spur from the loop stretching to Coolkeeragh station in Co. Derry. As in the Republic, the 110 kV network is the most extensive element of the grid providing bulk electricity supply to each county and large town in Northern Ireland.
- 2.1.3 In 1970 a 275 kV double circuit tower line was constructed to connect the two systems between Northern Ireland (Tandragee Station) and the Republic (Louth Station). For security reasons, this interconnector was out of service from 1975 until 1995, after which it was returned to service. However, this existing infrastructure is subject to technical operational limitations; for example, with the double transmission circuits being erected on the same tower structures and extending from the same terminal substations, a single event could result in a loss of both circuits. Such an event could have significant transmission system implications.
- 2.1.4 In addition to the main interconnector, in 1994 two single 110 kV circuits were commissioned to provide cross border support between the local 110kV networks. One of these circuits links Letterkenny in Co. Donegal with Strabane in Co. Tyrone. The other links Corraclassy in Co. Cavan with Enniskillen in Co. Fermanagh.

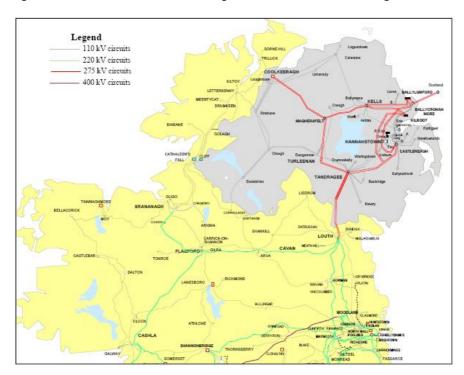


Figure 1 below shows the existing network and the existing interconnection.

Figure 1: Existing Network and Interconnection

#### 2.2 The Need for Reinforcement of the North-East Area

- 2.2.1 For a considerable period of time it has been acknowledged that the North-Eastern area of the Republic is in significant need of upgraded electricity infrastructure, as this strategic corridor continues to develop and expand. In particular, Dundalk is now identified as a Gateway City of the National Spatial Strategy; Drogheda is also a major growth centre of this area. At present the loading on the existing Dublin–Louth transmission network is reaching capacity which can result in low voltages in this region.
- 2.2.2 In 2002, ESBI carried out a feasibility study for reinforcing the supply to the major substation in the North-East region, which is Louth 220kV Station, by means of a double circuit 220kV line from the existing Corduff 220kV Station in Co. Dublin. The new lines were to be routed via a new 220kV station near Drybridge, close to Droghada. The ESBI study concluded that permission for a double circuit line was unlikely to be obtained due to the high visual impact of the tall double circuit structures, particularly where the route crosses the Boyne Valley. A single circuit line, with shorter structures, would have a greater chance of succeeding but would still be problematical and would, on its own, not achieve the level of reinforcement required.
- 2.2.3 As an alternative, ESBI recommended that instead of constructing a new 220kV line on a new route between Corduff 220kV Station and Louth 220kV Station greater use be made of the existing 220kV infrastructure in the region. Specifically, ESBI recommended that the existing Louth-Maynooth 220kV single circuit line, from the point of intersection with the existing 400kV line near Woodland 400kV Station, northwards to Louth Station be removed and

replaced with a double circuit 220kV line. This would facilitate the creation of a new Louth-Woodland 220kV line. In addition ESBI recommended that the existing Louth-Maynooth 220kV line and the existing Louth-Woodland single circuit 220kV line be up-rated. These recommendations, if implemented, would have provided the required additional capacity envisaged at the time. EirGrid however determined that the extensive outages required to implement the strategy could not be facilitated without severe disruption. The proposals were therefore put on hold and attention was turned to the implementation of short term measures on the region's 110kV network.

2.2.4 Independently of the search for a long term solution to the problem in the North-East region, consideration was being given to the establishment of a second interconnector with Northern Ireland. Out of this a comprehensive, cost effective, solution emerged to the problem in the North-East region

2.3 The Impact of the Single Electricity Market (SEM)

- 2.3.1 A Single Electricity Market (SEM) has now been established for the island of Ireland. In the Republic of Ireland and Northern Ireland, as in other EU countries, domestic and commercial customers were historically restricted to a monopoly supplier of electricity, with no competition in the electricity supply marketplace. However, since the mid-1990s, the EU has legislated to promote choice for energy customers. The most relevant documents are directives 96/92/EC and 98/30/EC. In line with these Directives, the government in the Republic of Ireland introduced a wholesale electricity market in 2000. The choice of supplier was phased in over the following five year period for all consumers. In Northern Ireland all consumers have that choice from November 2007.
- 2.3.2 The mechanism for establishment of SEM derives in part from the November 2004 document 'All-Island Energy Market, A development Framework' published by the Governments of the Republic of Ireland and Northern Ireland together with their energy regulators (Commission for Energy Regulation (CER) and Northern Ireland Authority for Energy Regulation (NIAER)). This document sets out the commitment of both Governments to meeting the creation of an all-Island SEM. Of note, this document identifies enhanced electricity infrastructure as a short to medium term priority in the creation of the SEM. Specifically, it refers to a second electricity interconnector as a key enabler to remove existing gaps and bottlenecks in the electricity infrastructure.
- 2.3.3 In short, and having regard to the issues detailed in Section 2.1 above, the existing reliance on a single interconnector is considered a significant constraint to ensuring an efficient SEM between Northern Ireland and the Republic of Ireland. The constraint creates inefficiency in the market, and therefore excess cost for customers because it prevents the most efficient generators having total access to the market at all times. With the present level of interconnection, the Single Electricity Market (SEM) will still exhibit the characteristic of two separate markets due to the fact that the two systems are only connected with one interconnector. Electricity can not be traded in an effective way to facilitate the benefits that the SEM would bring to the customers. In this context, it is the case that a new interconnector is

- needed to support a Single Electricity Market (SEM) on the island of Ireland. This has been highlighted in the National Development Plan 2007-2013.
- 2.3.4 The development of an additional interconnector is also referred to in the Irish Government's Energy White Paper entitled 'Delivering a Sustainable Energy Future for Ireland', published in March 2007. This publication recognises the need to invest in energy infrastructure that will underpin the overall strategic objective to ensure security of supply at the most competitive cost together with environmental sustainability. The White Paper also acknowledges that additional interconnection will improve the efficiency of the SEM and enhance links with other markets, such as the UK market.
- 2.3.5 The establishment of the SEM has required the linking together, of the two separately owned transmission networks on the island of Ireland, in such a way that they operate electrically as a single synchronized AC transmission network. The proposed additional North-South interconnector is however still considered by the European Union, specifically in Decision No 1364/2006/EC, to be a trans-European connection, that is, an interconnector between two member states.
- 2.3.6 While the proposed additional North-South interconnector is required to remove a 'bottleneck' to the free flow of energy on the network it is also required to operate dynamically in the same way as any other AC transmission line on the integrated network. This is fundamentally different to the required operation of the existing, and proposed future, interconnectors between the island of Ireland and the island of Great Britain. These East-West interconnectors provide a link between two transmission networks that operate independently of each other. A free flow of energy with a dynamic response is not required or even desirable on interconnectors between two asynchronous networks. Instead the flow of energy must be controlled in accordance with agreements between the respective Transmission System Operators. This is best achieved by installing an AC-DC-AC converter on the connection between the two asynchronous systems.

#### 2.4 Towards a Second Interconnector for the Island

- 2.4.1 In addition to the considerations above, it was considered that an additional interconnector would reduce the requirement for generation capacity on the island of Ireland. This would thereby reduce capital investment in power stations and other generator infrastructure that would ultimately be paid for by electricity customers. Furthermore, the additional interconnector option has the potential ability to allow greater connectivity to renewable generation sources. Overall, it became clear that an additional interconnector is an important element in ensuring an appropriate security of supply on the island of Ireland.
- 2.4.2 A significant number of technical, economic/commercial, and other studies have been carried out to establish the feasibility of a second interconnector. In particular, it was considered essential that the two interconnectors are separated, both electrically and geographically, in order to ensure uninterrupted security of supply. Associated with this, technical findings

- confirmed that no scheme based solely upon the existing interconnector would deliver the benefits detailed above.
- 2.4.3 High level multi-criteria studies were carried out regarding the general location of potential corridors for a new interconnector, summarised below:-
  - Eastern Option: based on a third circuit between Louth and Tandragee.
     Since the route would most likely follow the existing interconnector route, there is thus a risk of a simultaneous outage of all three circuits. The eastern route was therefore discounted.
  - Western Option: based on a circuit between Co. Sligo and Coolkeeragh
    generating station in Co. Derry. However, this option was considered to
    have technical limitations, particularly due to the fact that it would connect
    the weakest parts of both networks. It would also be longer and more
    expensive. It was considered to cause a greater environmental impact.
  - Mid-Country Option: This option delivers required transfer capacity in either direction. This is the shortest and most economic option which meets primary technical requirements. It would also be close to the existing Flagford-Louth 220kV line. In addition, it would minimise the need for additional provision of 220kV infrastructure, with its associated likely environmental impactThe Mid-country option was thus deemed to be the preferred option.
- 2.4.4 Other studies in respect of the design and location of a second interconnector addressed technical issues such as voltage level options, the nature of the high voltage current, and the form of the transmission line – including overhead and underground alternatives.
- 2.4.5 These strategic studies serve to justify the need for the project, and present the general parameters for the design and location of the proposed North-South interconnector project.

# 2.5 The Evolution of the Overall Strategic Transmission Line Project

- 2.5.1 The need for an additional interconnector, and the broad parameters for its form and location have been detailed above. The preferred option for this interconnector occurs between a new station located at Turleenan, Co. Tyrone, and a new station near Kingscourt, Co. Cavan.
- 2.5.2 Separately to this, a new east-west interconnector between the Republic and Wales is expected to become operational around the same time as the North-South Interconnector (estimated for 2012/13). The western terminus of this interconnector is currently envisaged as Woodland, having regard to current capacity limitation at the major Dublin stations of Finglas and Corduff, and to the fact that Woodland forms the eastern terminus of the existing 400 kV circuit with Moneypoint.
- 2.5.3 Whilst consideration was being given to the parameters for the realisation of both the east-west and the north-south interconnectors, consideration of options for reinforcing the north-eastern network was continuing separately. Such options included new transmission routes, or alterations of existing routes. Opportunities and constraints were identified, including the following:-



- The extension of the 400 kV network between Dublin and the North-East will facilitate connection of possible future gas-fired generation in the area;
- A 400 kV line facilitates power flows three times greater than an equivalent 220 kV line;
- The Kingscourt-Woodland 400 kV proposal comprises the best option for a 400 kV transmission line:
- In-situ reinforcement was considered but discounted as the extensive outages required to implement the strategy could not be obtained.
- A route for a new 220kV line from north of Dublin to Louth 220kV Station
  was not considered to be feasible due to the densely populated area that
  it would have to traverse and the problems associated with crossing the
  River Boyne in the vicinity of Drogheda;
- 2.5.4 During consideration of the various options to ensure reinforcement of the North-East corridor, it became clear that the establishment of a new 400kV/220 kV transmission substation west of Louth Station was the optimum setting for the second North-South Interconnector. An indirect consequence of such establishment is the potential to provide a much more significant reinforcement of North-East transmission network than that proposed by ESBI's original 2002 report, utilising the existing Flagford-Louth east west 220 kV route. Such greater reinforcement is consistent with the identification and intended spatial development of the North-East region as a key strategic development corridor of the country.

2.5.5

- 2.5.6 In this latter regard, an option of linking to the existing Arva station situated near to the Flagford-Louth line was considered; however, it was discounted having regard to its location within the central part of the country, and therefore the potential difficulties and higher costs in serving the north-east region.
- 2.5.7 Arising from all this, there is clear benefit in exploring the merits of an overall integrated strategic transmission line project, combining the North-South Interconnector element and the Kingscourt-Woodland 400 kV element. Both have the potential to accommodate a 400 kV system, and thus, to extend the high voltage systems both to reinforce the North-East region, and to link the primary ESB and NIE systems.

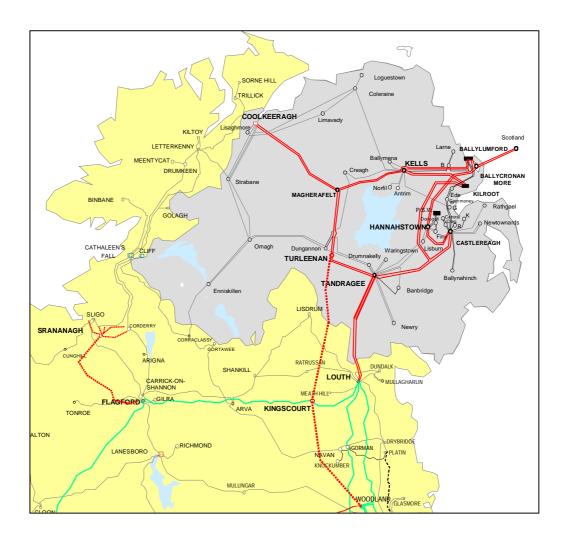


Figure 2: Proposed North-South Interconnector and Kingscourt-Woodland 400 kV corridor

#### 3.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT

- 3.0.1 Chapter 2 above sets out the overall rationale for the proposed strategic development of electricity transmission infrastructure on the island of Ireland. As noted in Chapter 1, the overall strategic infrastructure project is being considered as three separate, but inter-related elements:-
  - The Northern Ireland Project: Tyrone (Turleenan) to the Border
  - The Cavan-Border 400 kV Interconnector project
  - The Kingscourt –Woodland 400 kV transmission line project

The Northern Ireland Project is being carried out by Northern Ireland Electricity (NIE) within that separate jurisdiction. The Cavan-Border 400 kV Interconnector project is being implemented by EirGrid. The Kingscourt – Woodland 400 kV transmission line project is being implemented by EirGrid.

- 3.0.2 A detailed summary of each of these elements of the overall strategic infrastructure development is set out below. The overall project should not be viewed in isolation from its fundamental purpose to interlink with, and to ensure a more appropriate security of power supply within the existing national and all-island electricity transmission network.
- 3.0.3 It should be noted that the overall project is only at the primary strategic stage of development and design, with no selection of a preferred corridor or route, or confirmation of the nature and extent of associated infrastructure, structures, and other works. Notwithstanding this, however, it should be noted that the objective of the route selection process is to identify an overall route for new electricity transmission line infrastructure that further connects the existing National electricity grid network of the Republic of Ireland with the corresponding grid network in Northern Ireland. As such, in terms of selection of route options, close regard must be had to appropriate connection points within the overall gird network occurring on the island of Ireland.

#### 3.1 The Northern Ireland 400 kV Project: Tyrone (Turleenan) to the Border

3.1.1 The backbone of the Northern Ireland transmission network, although constructed to 400kV standard, operates at 275kV. This facilitates the proposed north-south interconnector project, comprising a 400 kV connection extending from a proposed 400/275 kV substation at Turleenan, Co. Tyrone, southwards to the border with the Republic, at a point north-east of Clontibret, Co. Monaghan; this portion of the Interconnector is under the administrative control of Northern Ireland Electricity.

# 3.2 The Cavan (Kingscourt) – Border 400 kV Interconnector Project

3.2.1 From the border, the 400 kV transmission line will extend to a proposed 400/220 kV sub-station in the vicinity of Kingscourt, Co. Cavan. The existing Flagford – Louth 220 kV east-west transmission line will loop into this new proposed sub-station at Kingscourt

3.2.2 The length of the overall proposed North-South Interconnector transmission project is approx. 80 Km, though such length is dependent upon the specific final route that will eventually be selected. As the overall North-South Interconnector project traverses both the Republic and Northern Ireland, separate planning applications will be made in each jurisdiction. In addition, two separate Environmental Impact Statements will be prepared for the two separate but inter-linked applications. Having regard to the need to closely integrate both parts of the project, a joint EirGrid/NIE project management team is managing this part of the overall project.

# 3.3 The Cavan (Kingscourt) – Meath (Woodland) Transmission Line Project

3.3.1 The 400 kV line extends from the proposed sub-station at Kingscourt, generally southwards to the existing 400 kV sub-station at Woodland, near Batterstown, Co. Meath. The length of this portion of the overall proposed transmission project is approx. 58 Km, though again such length is dependent upon the specific final route of the transmission line project. The Woodland station is the eastern terminus of a major east-west 400 kV transmission line corridor, extending from Moneypoint in Co. Clare. The existing Flagford – Louth 220 kV east-west transmission line will loop into the new proposed substation at Kingscourt. This, together with the new proposed Kingscourt-Woodland 400kV transmission line, are needed to reinforce security of electricity supply to the north-eastern region of the Republic of Ireland, including Counties Louth, Monaghan, Cavan and Meath.

## 4.0 The Legislative Context for the Proposed Development

4.0.1 Any consideration of the strategic planning context for the proposed strategic electricity transmission infrastructure must have a clear understanding of the legislative basis upon which it will be assessed. In particular, the legislative process applying to the proposed development has fundamentally altered from that applying to the previously approved electricity transmission line projects, although much remains relevant.

# 4.1 The Planning and Development (Strategic Infrastructure) Act 2006

- 4.1.1 This Act (hereinafter for clarity termed the SIA) is titled in part "An Act to provide in the interests of the common good, for the making directly to An Bord Pleanála of applications for planning permission in respect of certain proposed developments of strategic importance to the State: to make provision for the expeditious determination of such applications, applications for certain other types of consent or approval and applications for planning permissions generally....". The Act commenced in its entirety on 31<sup>st</sup> January 2006, including provisions relevant to the proposed project.
- 4.1.2 Section 4 of the SIA amends Part XI of the Planning & Development Act 2000 (the Principal Act) by inserting new sections after Section 182 of the 2000 Act, (Sections 182A-182E inclusive) which relate to Provision of Electricity Transmission and Gas Infrastructure. It is clear therefore that the provisions of Section 4 of the SIA apply in this instance.
- 4.1.3 Section 182A of the SIA provides that, where a person (the "undertaker") intends to carry out a "development comprising or for the purposes of electricity transmission", the undertaker shall prepare an application and an EIS, and shall apply to An Bord Pleanála for approval of the development (under S.182B of the Act). There is thus no latitude for approval of such development without prior compliance with the provisions of this part of the Act (and with associated Part 18 of the Planning and Development Regulations 2006). Subsection 9 confirms that "transmission" in relation to electricity, shall be construed in accordance with section 2(1) of the Electricity Regulation Act 1999, as detailed below:-

"transmission", in relation to electricity, means the transport of electricity by means of a transmission system, that is to say, a system which consists, wholly or mainly, of high voltage lines and electric plant and which is used for conveying electricity from a generating station to a substation, from one generating station to another, from one substation to another or to or from any interconnector or to final customers but shall not include any such lines which the Board\* may, from time to time, with the approval of the Commission, specify as being part of the distribution system but shall include any interconnector owned by the Board\*.

\* "Board" refers to the Electricity Supply Board (ESB)

- 4.1.4 The SIA clarifies that "transmission" shall also be construed as meaning the transport of electricity by means of (a) a high voltage line where the voltage would be 110 kilovolts or more, or (b) an interconnector, whether ownership of the interconnector will be vested in the undertaker or not. Having regard to the above, and in particular the provisions of Section 182A of the SIA, the definition of "development comprising or for the purposes of electricity transmission" clearly incorporates all development works and structures associated with the proposed project.
- 4.1.5 Section 182E of the SIA requires that a prospective applicant shall, prior to making an application for approval for electricity transmission development, enter into consultations with An Bord Pleanála (The Board). The Board may give advice regarding the application, including the procedures involved and what considerations related to proper planning and sustainable development and the environment, may, in the opinion of the Board, have a bearing on its decision. It is reasonable to consider, in this case, that the word "may" can be substituted with the word "will".

#### **Pre-Application**

- 4.1.6 Art. 210 of Part 18 of the Planning and Development Regulations 2006 provides that, during pre-application consultation, the Board shall indicate the following to a prospective applicant:-
  - the plans, particulars or other information it will require for consideration of the application,
  - the time frames and sequencing to be applied to the applications process,
  - any other matters considered to be appropriate.

The Board may require a public notice, and public consultation, in advance of an application, including a site notice, provision of or placing of information on a web-site, use of media, public meetings etc. In addition, the Board may indicate the prescribed bodies (a list of which is set out under Art. 213 of the Regulations) which should be notified of the proposal — it is a requirement that the prospective applicant notifies these bodies. All this does not prevent the Board from requiring a prospective applicant to submit further information or from giving further public notice following submission of the application.

As part of the pre-application consultation, the applicant may request a written opinion on what information will be required by the Board to be contained in the EIS (Scoping). This request must be complied with by the Board as soon as possible; for the purposes of the consultation or scoping request, the Applicant must provide the Board with sufficient information in relation to the proposal in order to enable the Board to assess the proposal.

4.1.7 The Board must keep with the application documents a written record of any consultations. However, any such consultation and Board opinion, including in respect to EIS scoping, shall not prejudice the performance by the Board of any of its functions under the SIA or any other Act, and cannot be relied upon in the formal planning process or in legal proceedings.

#### The Application

4.1.8 The application, and any EIS, shall be submitted to the Board, and to other identified Prescribed Bodies Prior to submission of the application, the

- applicant shall publish a newspaper Notice informing of the intended submission of the application to the Board.
- 4.1.9 The Board may request further information at any stage, though such information must relate to the implications of the proposal for proper planning and sustainable development in the area concerned, and the likely effects on the environment of the proposal. If in mind to approve the proposal, the Board may specify alterations to the proposal (however, it must state that it is of the mind to approve the proposal); any alterations submitted which are in accordance with the terms of the Board's specification are deemed to constitute the proposed development. Following receipt of further information, where the Board considers that this contains significant additional data relating to likely effects on the environment, or consequences for proper planning and sustainable development, or where the scheme has been altered, it shall require the publication of a new Notice, and require submission of the Notice and a copy of the further information to each prescribed body originally notified.
- 4.1.10 Art. 217 of the Regulations provides that all submissions on the application must be made within the period specified in the published notice. There is no entitlement to elaborate or make a further submission, unless invited to do so by the Board. Where it considers it necessary or expedient in respect of making a decision, the Board may make any application information available for inspection; it may also hold meetings with the applicant or any other person, including where this is considered necessary to resolve any disagreement in advance of any oral hearing; of note in this latter regard, an oral hearing is not a mandatory part of the process.

#### The Decision

- 4.1.11 Section182B of the SIA provides that, prior to making its Decision, the Board shall consider the EIS, any submissions relating to the likely consequences for proper planning and sustainable development and the likely effects on the environment, and the report and recommendations of a person conducting any oral hearing. The Board can approve in whole or part; it can require modifications to the proposal; or it can refuse approval. It may attach conditions which are considered appropriate; these include conditions relating to construction or financing of a facility or service which would constitute a substantial community gain. In making its Decision the Board shall also have regard to the relevant Development Plan, any SAAO, any European site designation and impact on same, the matters of S.143 of the 2000 Act (policies and objectives of Government, a State Authority, the Minister, planning authorities, and any other public authority whose functions may have a bearing on the proper planning and sustainable development of areas), and the provisions of the SIA. The Notice of the Decision must state that submissions were considered prior to the making of the Decision.
- 4.1.12 No Permission is required for an approved development. However a proposal shall not be carried out unless the Board has approved it. In particular, Part VIII of the 2000 Act (Enforcement) shall apply where development is carried out other than in compliance with the approved scheme. However, Section 30 of the SIA provides that, on request of a person intending to carry out a Strategic Infrastructure Development, the Board may alter the terms of the development; the Board must decide whether this would constitute a material

alteration, and may invite submissions in respect of this matter; if it would not constitute a material alteration, the Board must alter the consent; if it would, the Board must determine whether to make the alteration, make a different alteration (which is not a more significant change to the terms of the approved development than that which would occur by the actual proposed alteration), or refuse to make the alteration. If the Board determines that the alteration would not have significant effects on the environment, it must make a determination; if it determines that it will have such significant effect, it must apply the provisions of Section146C of the SIA, requiring an EIS in respect of the alteration. The EIS, in addition to a published (or proposed to be published) newspaper notice, shall be submitted to the Board, the relevant local authority, and any affected Member State. Following this, the Board must determine the alteration.

# 5.0 Statutory and Strategic Planning Context

- 5.0.1 The proposed strategic electricity transmission infrastructure must be considered in an all island context of current National, Regional and Local Planning Policy. The strategic context for energy infrastructure is set within the framework of the National Development Plan 2007-2013, the National Spatial Strategy 2002, the Border Midlands West Regional Planning Guidelines 2004 and the relevant County Development Plans. The context is also included in policy documents from Northern Ireland including 'Shaping Our Future' Regional Development Strategy for Northern Ireland 2025 and Investment Strategy for Northern Ireland 2008 2018.
- 5.0.2 Of note in this particular regard is Decision No. 1364/2006/EC of the European Parliament and of the Council of 06 September 2006, which lays down a series of guidelines for trans-European energy networks. The guidelines identify projects of common interest, including those which have priority, among trans-European electricity networks.
  - Item EL.6 of Annex I of the Decision identifies as a priority project "increasing electricity interconnection capacities and possible integration of offshore wind energy" between Ireland and the United Kingdom.
  - Annex II identifies additional criteria for projects of common interest. Paragraph 2 specifically relates to a link between the Republic of Ireland and Northern Ireland as being "needed for the functioning of the internal market and in order to ensure the reliability and dependability of the operation of electricity networks"

# 5.1 The National Development Plan 2007-2013

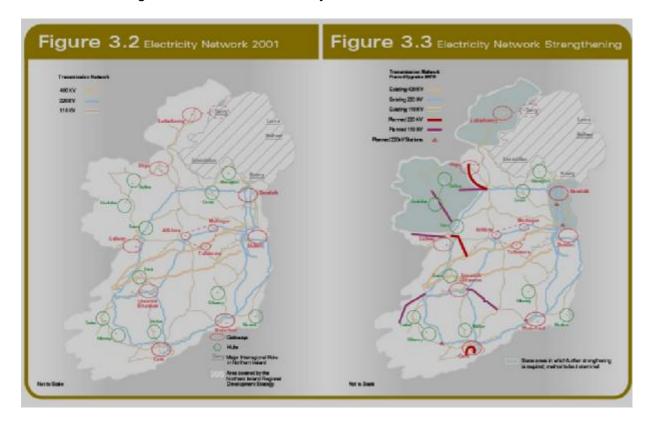
- 5.1.1 In respect of energy infrastructure, the NDP acknowledges that both Northern Ireland and the Republic face an increasing challenge to provide a reliable, sustainable, secure and competitively priced energy supply on the island. Developing this supply will be crucial to maintaining and enhancing competitiveness and economic growth. The NDP identifies the development of an All-Island Energy Market as an opportunity to maximise market size on the island and to create economies of scale in the energy sector to the benefit of consumers and business on both sides of the border.
- 5.1.2 Chapter 7 of the NDP details the Economic Infrastructure Priority, including the Strategic Energy Infrastructure Sub-programme, to which €1.2 billion is being targeted. A number of large-scale energy infrastructure projects are included in this Plan to meet the need for timely investment at national strategic level to address the security of supply. The infrastructure investments required and/or planned in the energy sector are of critical national strategic importance. One such project is to achieve a greater interconnection with the North and with Great Britain and the move towards establishing a Single Electricity Market for the island will also help to ensure security of supply and generate benefits for businesses and consumers from all parts of the island while all the time contributing to regional development.

- 5.1.3 The projects envisaged will support priority energy investment needs, to deliver over the period of the Plan. These elements include:
  - Interconnection;
  - Market integration;
  - Network extension; and
  - Storage for greater security of supply.
- 5.1.4 Key strategic projects of relevance in this instance include:
  - East/West Electricity Interconnector, including the associated reinforcement costs of existing networks; and
  - Second North/South Electricity Interconnector, to underpin the all-island electricity market;
- 5.1.5 In particular the NDP references EirGrid plc, detailing the company's position, in the delivery of the Energy Infrastructure Programmes, as the independent electricity Transmission System Operator (TSO) in Ireland and the Market Operator of the wholesale electricity trading system.
- 5.1.6 The plan sets out that during the period 2007-2013, the main focus of investment by EirGrid will include improvement of the transmission network for electricity to accommodate increased usage and enhance security of supply, to allow increased connection of sustainable and renewable energy sources to the network and to support greater interconnection with Northern Ireland and Great Britain. Expenditure of some €770 million (under the State Energy Companies Sub-Programme) is envisaged on the transmission system over the period of the Plan. Such work on the transmission system will be undertaken by ESB (as asset owner) and will be carried out in accordance with EirGrid's Development Plan, as approved in advance by the CER.

#### 5.2 The National Spatial Strategy for Ireland 2002-2020

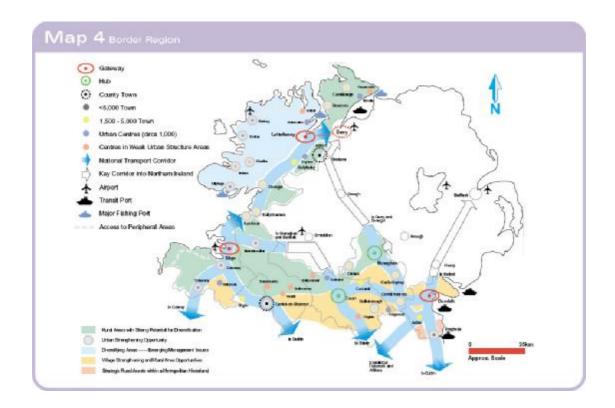
- 5.2.1 It is a key infrastructural principle of the NSS that achievement of a spatial balance by developing the potential of areas will depend on enhancing capacity for the movement of people, goods, energy and information between different places. Physical networks of infrastructure such as roads, public transport, energy and communications are of particular relevance to the NSS, since they themselves have a spatial impact and also influence the location, timing and extent of development. The objective for Ireland is to build on the substantial progress already made and establish frameworks for the development of enhanced transport, energy and communications networks, bearing in mind that these networks will be serving the country over the decades beyond 2020. The NSS also identifies the fact that reliable and effective energy systems, such as electricity and gas to power industry and services, are key prerequisites for effective regional development.
- 5.2.2 The NSS, notes that National economic growth has led to peak demand for electricity increasing from 2,460 megawatts (MW) in 1990/1 to 3,800 MW in 2000/1 and this is growing at a rate of between five to six percent per annum. Of comparative note in this regard, the system peak for the winter of 2007 was 4,906 MW (5,085 MW generated).

- 5.2.3 In specific relation to the transmission and distribution networks, a major programme of work is now underway to reinforce the national grid in order to meet international supply standards and to take account of rising demand. The key elements of this programme to 2007/2008 will be
  - · upgrading existing lines
  - installation and/or upgrading of transformer stations
  - new lines.
- 5.2.4 According to the NSS and specifically relative to the proposed development; "A particular emphasis is being placed on the reinforcement of the grid in western counties. Accelerated growth in the Border, Midlands and West (BMW) region also suggests that in addition to the above programme, power corridors will need to be considered to augment the capacity of the grid in Galway/Mayo/Sligo and along a corridor from Dublin to Dundalk (See Fig 3.2 and Fig 3.3)".
- 5.2.5 With regards to the relationship between local planning and electricity network planning, the strategy notes that the important points to consider include:
  - the need to address electricity infrastructure in county development and local plans to facilitate national, regional and local economic progress
  - the need to liaise with the operators of the transmission and distribution grids, particularly in the environs of towns, to ensure the continued availability of corridors for overhead cables and continuity of supply for existing and new users of electricity.



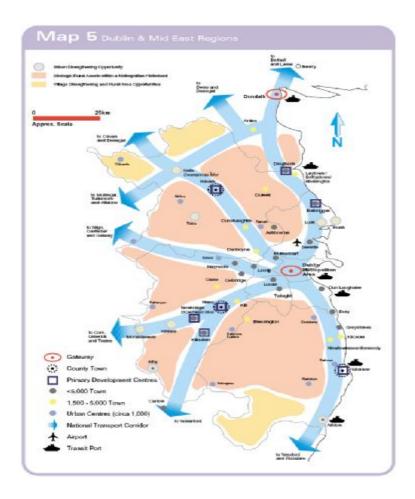
5.2.6 A priority for energy in the NSS is thus to extend the electricity network to support the development of the existing and proposed gateways and hubs, including, where necessary, appropriate advance investment to meet

- anticipated demand arising from planned-for growth in these centres. Furthermore the proposed development is set to ensure regional development for the Border Midland and West area.
- 5.2.7 The extended study area forms part of both the Border, Midland and West Region and the Dublin and Mid East Regions as identified by the Strategy.
- 5.2.8 The factors critical to the full participation of the Border Midland and West Region, in balanced regional development, include the strengthened roles and contribution of Letterkenny/Derry, Sligo and Dundalk, as new gateways to drive development through enhanced critical mass, accessibility and capacity for development. Map 4 below is extracted from the NSS. Monaghan and Cavan are both identified as 'Hubs'. The extracted Map 4 below refers to the Border Region.



- 5.2.9 The study area extends south eastwards to Navan, into the Dublin and Mid East Region.
- 5.2.10 The Dublin region and the Mid East region (the Greater Dublin Area) are considered together because of their strong functional interrelationship. Enhancing the competitiveness of the Greater Dublin Area (GDA), so that it continues to perform at the international level as a driver of national development, means physically consolidating the growth of the metropolitan area. At the same time, development in the hinterland of the metropolitan area is to be concentrated in strategically placed, strong and dynamic urban centres i.e. the 'Primary Development Centres' identified in the Strategic Planning Guidelines. Navan has been identified as one such Prime Development Centre in the hinterland of Dublin.

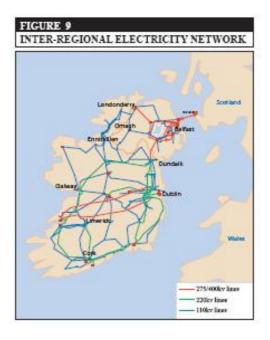
5.2.11 The future roles of primary development centres such as these must take account of wider considerations, in addition to their relationship to Dublin. Issues that arise in this regard include the question of how such centres can energise their own catchments and their relationships with areas in the neighbouring regions of the Border, Midlands and South East. The extracted Map 5 below details the Dublin and Mid East Region.

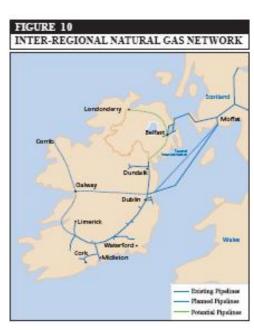


# 5.3 'Shaping Our Future' – Regional Development Strategy for Northern Ireland 2025

- 5.3.1 The Regional Development Strategy for Northern Ireland is a strategy to guide the future development of Northern Ireland to the year 2025 and to help to meet the needs of a fast growing region with a population fast approaching 2 million. The strategy seeks to strengthen economic and social cohesion by enhancing external linkages. An important strategic spatial planning objective is to increase links with neighbouring regions, and capitalise on trans-regional development opportunities.
- 5.3.2 In relation to social and economic development in Northern Ireland the key themes and measures of the strategy are;
  - to accommodate a population growth of 105,000 persons by 2015 and about 150,000 by the year 2020.

- to facilitate the development needs of economic growth and the creation of approximately 100,000 extra jobs to cater for the expanded population expected by 2015. Contribute to the reduction of socio-economic differentials with the Region and tackle issues of employment and longterm unemployment.
- 5.3.3 The strategy emphasises making good use of past investment in physical and social infrastructure while tackling deficiencies. It is acknowledged that this will require a strategic long-term perspective on infrastructure co-ordinating, planning, programming and setting regional priorities not just within the region, but also in terms of national, cross-border and EU provision.
- 5.3.4 Part of this strategy is to continue to upgrade regional electricity infrastructure to meet the needs of future growth, and particularly the power demand from new housing areas, commercial areas, industry and large scale IT developments.
- 5.3.5 A specifically relevant objective as set out in Chapter 4 of the strategy, Strengthening Regional Cohesion in a Global Context, is as follows;
  - **SRC 2.1** Encourage cross-border networks of economic co-operation and enterprise:
  - . . . . . .
    - encourage cross-border energy interconnections to create an all island energy market with linkages to the Great Britain and European markets distribution grids (Figures 9 and 10).





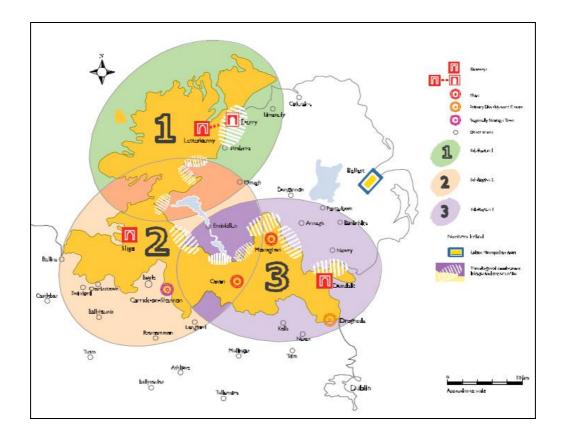
# 5.4 Investment Strategy for Northern Ireland 2008 – 2018

5.4.1 The Investment Strategy 2008-2018 sets out the framework for the creation and implementation of sustainable 21st century infrastructure for Northern Ireland. It identifies priority areas for investment in the years ahead and is intended as a guidance document for both public and private sectors.

- 'Delivery Plans' are currently being finalised to provide more detail on the implementation of this Strategy; these plans are due to be published before the end of March 2008.
- 5.4.2 In seeking to prioritise more balanced regional development, the plan places a particular focus on cross-border links and developing infrastructure in the border areas.
- 5.4.3 One of the key goals over the lifetime of the strategy is to build a more competitive energy market, a Single Electricity Market that provides a framework for a larger, competitive wholesale market in line with the EU vision for regional electricity markets. In this regard the executive will provide investment in better grid connectivity to help support this, informed by the cross border grid study.

#### 5.5 Regional Planning Guidelines for the Border Region

- 5.5.1 The objective of the Regional Planning Guidelines is to provide a long-term strategic planning framework, for the development of the Border Region over a 20 year period. The planning framework sets the scene for the implementation of the National Spatial Strategy at a regional level, and contains strategic policy directions which will cross the boundaries of the individual counties, and will later be incorporated into the policies of the county and other Development Plans of the Region.
- 5.5.2 The National Spatial Strategy has identified reliable and effective energy systems such as electricity to power industry and services a prerequisite for effective regional development. Prime considerations relevant to the Border Region are 'the development of energy infrastructure on an all-island basis and the strengthening of energy networks in the West, North West, Border and North Eastern areas in particular.'
- 5.5.3 Priorities include the improvement in reliability of supply to the North-West and Border and North Eastern parts of the country and strategic strengthening of the electricity grid serving particular clusters of employment related demand in peripheral areas.
- 5.5.4 The extended study area forms part of the identified 'Sub Region 3 : Border East: Cavan, Monaghan and Louth and Northern Ireland hinterland'.



# 5.6 Regional Planning Guidelines for the Greater Dublin Area 2004 - 2016

- 5.6.1 The Regional Planning Guidelines provide a robust sustainable planning framework for the Greater Dublin Area within the context of the Planning and Development Act, 2000 and the National Spatial Strategy 2002-2020. They provide a long-term strategic planning framework for the development of Greater Dublin Area in the 12 year period up to 2016 within the NSS vision for 2020. The Regional Planning Guidelines have been devised and prepared having regard not only to the recommendations of the NSS for the Dublin and Mid-East Regions (the Greater Dublin Area), but also, importantly, for the regions surrounding the GDA.
- 5.6.2 With regard to the GDA, the NSS recognises that it is essential: "that the performance of the economy of the Greater Dublin Area (GDA) and surrounding counties is built upon so that its success, competitiveness and national role are sustained into the future".
- 5.6.3 The plan set out six basic goals which it aims to deliver as part of comprehensive defined strategies. The relevant Goal No. 5 is as follows; "To provide a coordinated spatial organisation for services infrastructure (including water, wastewater, electricity, gas & telecommunications) in designated corridors that supports and facilitates the orderly integrated development of the region in a sustainable manner: This will be easier to achieve if a strong spatial pattern is established and these Regional Planning Guidelines envisage the concentration of population within a pattern of corridors".

5.6.4 As part of the overall Transportation and Infrastructure Strategy, Section 8 addresses the issues of Infrastructure including energy networks. Specifically in relation to energy the guidelines recognise that Ireland's continued economic growth has resulted in a marked increase in the consumption of electricity since 1999. In light of its duty to promote security of supply, the guidelines note that the CER has initiated a number of measures to increase generation capacity in Ireland. It is expected that when the network renewal programme is completed, it will deliver considerable improvements in quality and safety in the Distribution Network.

# 5.7 Dungannon and South Tyrone Area Plan 2010

- 5.7.1 The overall aim of the Dungannon and South Tyrone Plan, in line with the Regional Development Strategy ('Shaping Our Future') for Rural Northern Ireland, is to develop an attractive and prosperous rural area, based on a balanced and integrated approach to the development of town, village and countryside contributing to the overall well-being of the Region as a whole. This aim is to be achieved by action on a series of Strategic Objectives and supporting the Strategic Planning Guidelines.
- 5.7.2 The upgrade and expansion of general physical infrastructure to accommodate growth is stated as one of the strategic planning aims for the lifetime of the Plan.

#### 5.8 Armagh Area Plan 2018 [being prepared]

5.8.1 The issues paper for the Armagh Area Plan 2018 sets out the planned implementation of the Regional Development Strategy for Northern Ireland. The issues paper indicates that the provision of necessary infrastructure is required to facilitate future economic growth. The preparation of the draft plan is likely to take place in July/August 2008.

# 5.9 Monaghan County Development Plan 2007 - 2013

- 5.9.1 The development of secure and reliable energy infrastructure is recognised as a key factor for maintaining and promoting growth together with attracting investment to the County. It is a stated objective of the Border Regional Planning Guidelines (RPGs) to highlight energy deficits within the Region, to initiate the establishment of strategic infrastructures throughout the Region through co-operative action by the member planning authorities and to encourage research and development of alternative forms of energy with regional potential. The Local Authority supports this initiative. The provision of energy supply, with a variety of supply sources is viewed as essential in achieving growth within a region.
- 5.9.2 There are no particular policies in the Monaghan County Development Plan which refer to the provision of electricity infrastructure in the county. There are general references to improving infrastructure, including energy, in the County in order to facilitate economic growth throughout the County.

#### 5.10 Cavan County Development Plan 2003 - 2009

5.10.1 The upgrade and expansion of general physical infrastructure to accommodate growth is referred to as one of the strategic planning aims for the lifetime of the Plan. The Plan supports the acknowledgement in the Regional Planning Guidelines that the provision of energy supply, with a variety of supply sources is essential in achieving growth within a region.

#### 5.11 Meath County Development Plan 2007-2013

5.11.1 The challenges facing County Meath cannot be underestimated. The county has experienced unprecedented growth within the residential sector, unparalleled by any other county, even those within the Greater Dublin Area or Mid-east region. However, the employment sector and economic development generally has remained low, unable to keep pace with the increases in residential population. To address these challenges, the plan has derived detailed policies and objectives under the guidance of a set of Strategic Themes. The Strategic themes are presented under the headings of the main chapters of the plan. The chapter relevant to this project is the Infrastructure Strategy with the aim of preparing 'a Thematic Spatial Strategy for Infrastructure which will identify and protect corridors for major critical infrastructure in the County such as power, rail, road, water and waste'

Section 4 of the Infrastructure Strategy relates to energy. The plan recognises that the availability of energy is of critical importance to the continued development and expansion of employment in Co. Meath. It notes that the growth in the national economy has placed a strain on the national electricity generating capacity. The ESB National Grid, in its Generation Adequacy Report (2003 – 2009), has identified significant generation shortfalls as electricity demand continues to grow at approximately 3.5% per annum.

The Planning Authority recognises the essential requirements for electricity production and distribution. The two main energy networks serving Co Meath are electricity and gas. With increased residential development in the county and a drive for more industrial, commercial and employment generating uses, it will be important to ensure that the capacity of the energy networks is sufficient to meet these demands.

In line with the National Spatial Strategy it is the objective of the development Plan, particularly in the environs of towns, to ensure the continued availability of corridors for overhead cables and continuity of supply for existing and new users of electricity. Of note, when detailing the electricity Profile of Electricity in Co Meath the plan notes that there are capacity constraints, particularly affecting the Navan Area.

#### 5.12 Conclusion

Subsequent to the above strategic planning policy review the following conclusions can be drawn:

- Increased electricity interconnection capacity between Ireland and the United Kingdom, specifically Northern Ireland, has been identified by the European Parliament as a priority project, and a project of common interest.
- National investment strategies both for the Republic and Northern Ireland identify that the energy infrastructure is crucial to maintaining and enhancing competitiveness and economic. They both endorse an allisland Single Energy Market as an opportunity to maximise market size on the island and to create economies of scale in the energy sector to the benefit of consumers and business on both sides of the border:
- The National Spatial Strategy and the Regional Planning Guidelines identify the fact that reliable and effective energy systems, such as electricity to power industry and services, are key prerequisites for effective and sustainable regional development;
- National, Regional and Local Planning Strategies also recognise that the provision of strategic energy infrastructure is critical in supporting the enhanced provision of essential infrastructure to power the growth of identified growth areas.
- Overall the proposed enhancement of strategic electricity transmission infrastructure on the island of Ireland is a recognised solution to the identified constraints for sustainable development and growth in both the Republic of Ireland and Northern Ireland.

# 6.0 Towards a Procedural Path for the Planned Upgrading of National Strategic Electricity Transmission Infrastructure

- 6.0.1 The principle of development of the overall proposed electricity transmission project is clearly enshrined in European, National, Regional and Local strategic planning policies both pertaining to Northern Ireland, and to the Republic. Notwithstanding this, however, whilst seen as an essential contribution to regional development, and security of National energy supply, there is a clear acknowledgement that the benefit of development must be tempered by proper regard to potential environmental impact, including to people and communities.
- 6.0.2 The strategic planning and development context for the proposed developments of the overall project that occur within the Republic of Ireland, is only one aspect contributing towards the formation of a Constraints and Route Selection Report that in turn informs the identification of potential transmission line corridors, and eventual selection of a preferred route. Probably the key aspect that requires to be considered is the technical and "on the ground" site feasibility of the project based upon typical route corridors. Another key consideration is the need to ensure that those elements of the overall project that occur within this jurisdiction, are consistent with that separate element of the project that occurs in Northern Ireland, both in terms of design, and general route corridor location. A further major aspect is the character of any such route or corridor, and in particular, the comparative merits of an overground or underground option. These technical considerations are addressed separately.
- 6.0.3 Measures have been highlighted in the project, such as increased and more transparent public consultation on matters of design and routing. Ongoing public and stakeholder consultation, which is also likely to be a requirement of the pre-application and application process under the SIA, will assist in improving public confidence in the overall project; such consultation should occur at various stages of application preparation (e.g. for corridor selection, the preferred route, technical design development etc). The issue of consultation is also addressed separately.
- 6.0.6 This Report sets out the strategic, Statutory and legislative planning context for the proposed project. This will inform a roadmap process whereby a more specific timeline for the project can be realised. This document is not intended to comprise that detailed roadmap. However, the key elements in terms of timeline procedures should include the following:-
  - Ongoing design of the transmission line and associated infrastructure,
  - Identification and technical assessment of feasible corridor/route options.
  - Public consultation re criteria to be included in route option assessment,
  - Ongoing consultation with An Bord Pleanála under the provisions of the Planning and Development (Strategic Infrastructure Act) 2006,
  - Consultation with the DoEHLG and other Statutory/non-Statutory agencies and stakeholders,
  - Selection of shortlist of route options based on multi-criteria analysis,
  - Public and stakeholder consultation with respect to shortlisted options,
  - Following public and stakeholder consultation, identification of an emerging preferred route, based upon multi-criteria analysis,



- Ongoing technical design development, site investigations etc.,
- Ongoing preparation of application and EIS (and other) documents,
- Agreement of scope and content of application and EIS with ABP,
- Submission of the application and EIS to ABP,
- Compliance with subsequent requirements of ABP