



Energy for
generations

Electricity Supply Board

National Planning Framework – Issues & Choices

Submission on behalf of Electricity Supply Board
07/03/2017





Contents

1. INTRODUCTION	3
2. OVERVIEW OF ESB ACTIVITIES	3
2.1 Electricity Generation.....	3
2.2 Transmission & Distribution	4
2.3 ESB Telecoms & ICT Infrastructure	4
2.4 ESB Electric Vehicle (EV) Infrastructure	4
3. NPF – ISSUES & CHOICES	4
3.1 Policy impacting on energy infrastructure	5
3.2 All Ireland issues	5
3.3 Regional issues	6
3.4 Requirement for new electricity infrastructure	6
3.5 Transport Related Planning Policy.....	7
4. CONCLUSION.....	7

1. INTRODUCTION

Electricity Supply Board (ESB) is a statutory corporation established under the Electricity (Supply) Act 1927. Its responsibilities include electricity generation, electricity supply to end use customers and electricity networks - ESB owns the high voltage Transmission System and owns and operates the medium to low voltage electricity Distribution System.

ESB has technical assets of strategic national significance, therefore we welcome the opportunity to make a submission to the National Planning Framework, Ireland 2040 Our Plan – Issues and Choices Paper (NPF). We recognise that the preparation of this national spatial plan will provide a framework for future development and investment in Ireland.

ESB fully supports policies which align with meeting Government targets for emissions reduction, energy efficiency and increased renewable energy sources. To assist with the preparation of a new NPF and the overarching objective of adapting to a low carbon and climate resilient sustainable Ireland by 2050, ESB has set out a number of issues below in respect of the protection, provision and facilitation of strategic energy generation, transmission and distribution infrastructure.

2. OVERVIEW OF ESB ACTIVITIES

As a strong, diversified, vertically integrated utility, ESB operates right across the electricity market; from generation, through transmission and distribution to supply of customers. In addition, we extract further value from our assets through supplying gas, using our networks to carry fibre for telecommunications and to provide charging infrastructure for electric vehicles. ESB is a leading Irish utility, with 47% of generation in the all-island market and supplier of electricity to approximately 1.5 million customers throughout the island of Ireland.

2.1 Electricity Generation

ESB, Ireland's leading electricity utility, is building a truly sustainable company by investing in smart networks, renewable energy and modernising the generation portfolio. Sustainability, both within the company and in the services we provide are integral to our corporate strategy. We are committed to reducing carbon emissions and addressing long-term concerns over future fuel supplies. We have already reached our 2012 target of reducing carbon emissions by 30%, and in the coming years we are aiming to half the levels of CO².

ESB power generation has been a model of sustainability since its inception - it was first based on hydro power at Ardnacrusha (1929). This was followed by hydro power schemes on rivers Liffey (1937), Erne (1950), Lee (1957), Clady (1959) and Turlough Hill Pumped Storage Station (1973). The demands of economic development soon led to the familiar dominance of fossil fuel thermal stations (peat, oil and coal).

ESB is divesting much of our older inefficient thermal plants and replacing them with high-efficiency, combined cycle gas turbines. We're also making rapid progress in building our renewables portfolio based on wind. In 2015, 22.8% of the electricity generated in Ireland came from wind. (SEAI). ESB has over 400MW of installed capacity in the Republic of Ireland with additional wind farms in development. ESB plan to deliver a total operating capacity based on wind energy of 1,600 MW by 2025. By 2020, ESB will be delivering one-third of its electricity from renewable generation and will achieve carbon net-zero by 2035.

2.2 Transmission & Distribution

ESB Networks builds, manages and maintains a transmission and distribution network of over 180,000 km in the Republic of Ireland. It is responsible for constructing all the sub-transmission, medium and low voltage electricity network infrastructure in the country and for managing this infrastructure which is owned by ESB. The focus on recent investment in the network was on continuing the reinforcement of the system to facilitate the connection of new renewable electricity generation. ESB Networks is unique in that all electricity users are in contact with ESB Networks and in 2016 over 20,000 new residential and business connections were completed.

2.3 ESB Telecoms & ICT Infrastructure

ESB Telecoms has grown from its original function of providing a communications system for ESB to become Ireland's leading independent telecommunications infrastructure provider. ESB Telecoms now provides network solutions for the wide variety of mobile network operators, wireless broadband providers and public sector business activities. All sites developed by ESB Telecoms are made available to third party mobile phone and wireless broadband operators as points for co-location. Our open policy of sharing infrastructure limits the overall number of telecoms structures appearing in urban and rural landscapes.

In addition, a joint venture between ESB and Vodafone called SIRO - is bringing 100% fibre-to-the-building to 50 towns across Ireland. Powered by Light, SIRO is the only network in Ireland that uses the existing electricity network to provide 100% fibre broadband directly to the home or business, enabling speeds of 1 Gigabit per second. SIRO will continue to accelerate this roll-out in 2017.

2.4 ESB Electric Vehicle (EV) Infrastructure

ESB, as the owner/operator of the electricity Distribution System, is responsible for providing the EV charging infrastructure in Ireland.

To date, ESB has rolled out over 1,000 publicly accessible charge points, including 70 fast chargers along all major inter urban routes. Currently, the charge point infrastructure is building to become a comprehensive network of public and domestic charge points with open systems and platforms accessible to all supply companies and all types of electric cars. ESB targets are to install 2,000 home charge points, 1,500 public charge points and 60 fast charge points nationwide. 95% of all major towns and cities already have electric vehicle recharging infrastructure in place.

According to the 3rd National Energy Efficiency Action Plan (NEEAP), it is now estimated that approximately 50,000 electric vehicles will form part of the national transport fleet by 2020.

3. NPF – ISSUES & CHOICES

Energy infrastructure, including grid infrastructure and electricity generation, is critical to support Ireland's future growth. The development of world class infrastructure is critical to Ireland to maintain international competitiveness. Therefore we submit that, energy should be a significant issue within the NPF and sustainability, energy security and renewable policy should be considered central to the final plan.

3.1 Policy impacting on energy infrastructure

The NPF policy must support the development of nationally important infrastructure projects for Ireland that require delivery over the next twenty years. The annual *Generation Capacity Statement* cites a 2% increase in demand for Ireland during 2015, and continuing growth over the coming 10 years. Development of increased capacity can in some instances comprise enhancement or expansion of existing plant to make best use of existing infrastructure and connectivity to the grid. For the effective undertaking of its Power Generation, Transmission and Distribution obligations ESB relies on site specific factors i.e. direct access to cooling water, direct access to sea traffic for fuel delivery, fuel storage facilities, linkage into an integrated transmission and distribution network serving the main Urban centres.

Wind cannot be relied upon to provide security of supply - it doesn't always blow. Therefore, the requirement for investment in other forms of generation remains necessary to provide back up to intermittent renewables. One of the key goals of 'Delivering a Sustainable Energy Future for Ireland' is the security of energy supply". Section 3.1 'Actions to Ensure Security of Supply' states:

'Security of energy supply is crucial for the economy and society. Security of supply requires that we have reliable access to oil and gas supplies and the infrastructure in place to import, distribute and to store gas and oil. We also need robust gas and electricity networks and electricity generating capacity to ensure consistent supply to consumers and all sectors of the economy'

There is a need for direct access to shipping traffic for fuel supply and to accommodate diversity of supply. It is essential that the existing locations of strategic national infrastructure are retained in the long-term for electricity generation and that there is ongoing investment in new technologies, plant and equipment. Delivery of fuels by sea tanker is the only practical and economic way of ensuring adequate on-site stocks of primary fuels to cater for electricity system and national storage requirements. This is especially the case given Ireland's lack of indigenous fuel sources, reliance on imported fuel and our peripheral location in Europe.

S. 5.3.7 of the NPF proposes an option of creating *Strategic Energy Zones or Corridors, similar to Strategic Development Zones, as areas of national priority for renewable energy investment as well as to provide a test bed for new technologies and developing solutions and capture*. This focus on re-energising Ireland is welcomed.

The development of proposals for *Strategic Energy Zones* must be considered in the context of existing infrastructural assets as well as future development. The existing infrastructure, which has developed over many years, represents major and on-going capital and infrastructural investment in strategic national assets and is essential for the continued provision of a secure and reliable electricity supply.

3.2 All Ireland issues

There will be implications from Brexit that may well impact on planning across the border with Northern Ireland. This raises the question of how the NPF can facilitate co-ordination between shared connections across the border between Northern Ireland and Ireland. There is an opportunity to review the mechanisms that are needed to ensure a joined-up approach to strategic infrastructure and investment decisions that have a cross-border dimension and how to co-ordinate mutually beneficial ways to address common environmental challenges across shared catchments. Therefore, links between the NPF and the development planning system in Northern Ireland and how they interrelate may need to be considered. ESB would welcome the opportunity to contribute

to any deliberations regarding electricity grid connections and interconnections common to both jurisdictions.

3.3 Regional issues

The NPF is part of a hierarchy of plans that must direct plan-led development with effective public participation at national, regional and local level. Structures to facilitate more efficient collaboration between planning authorities for infrastructural development that impact on a number of local authority areas should be considered. Section 5.3.8 of the NPF makes reference to Regional Economic and Spatial Strategies and their role in coordinating infrastructural development across local administrative boundaries. There are a number of different systems in place in other jurisdictions which merit examination. In Ireland, the Strategic Integrated Framework Plan for the Shannon Estuary is a good example of a coordinated approach between planning authorities for infrastructural development that impacts on a number of local authority areas.

3.4 Requirement for new electricity infrastructure

The Draft Dublin City Development Plan 2016 – 2022 stated that electricity demand in the East Region is expected to increase by over 80% by 2025. It recognised that *“the development of a secure and reliable energy network is recognised as an important element for not only supporting economic development but also to provide for the needs of every sectoral interest in the city.”* In this regard, we highlight that, the provision for the development, expansion and renewal of electricity infrastructure is critical to meet growing demand and to protect the future capacity for the development of our main urban centres and the State generally.

The introduction of schemes such as *Strategic Energy Zones or Corridors* has the potential to address the significant costs resulting from delays and lack of finality regarding planning consent for major infrastructural schemes. There have been excessive delays, particularly in relation to controversial projects such as waste treatment centres, major road works, transmission lines as well as other projects in the areas of transport and energy. These developments were considered necessary for sustainable development and continued economic growth. Delays in these high profile projects are ascribed to the “planning system.”

It is clear from the media for some time that the Government and the industries/organisations responsible for the delivery of infrastructure has become frustrated with the existing process, the extended delays and the impact on costs. The planning process is a significant reason for delay and one that is somewhat in control of the State but not the only source of delay.

Based on the reported comments of industry leaders the main causes of delay are identified as; political indecision, the planning consent process, appeals to An Bord Pleanála, Judicial Review, legal actions by third parties and local objections/protestors on site. If the provisions of the NPF are essentially limited to only one aspect of the development consent process (land-use) even within its own terms it can only provide a partial solution to the problem. It is critical that the substantial investments in infrastructure are cost effective and returns are maximised. Bottlenecks in the ‘planning process’ are leading to substantial cost overruns and substantial delay in implementation. It is now accepted that the time scale and outcome of the planning process are unpredictable. Therefore, finality must be brought to the development consent process so that there a degree of certainty around timelines and some guarantee that a project can proceed quickly to completion. The provision of infrastructure can be planned to match future demand and the NPF policies should reflect that, in principle, they are supportive of infrastructure development where there is a clear requirement. Proposals for capital spending on new infrastructure should also be considered in the

context of long term benefits taking account of Ireland's Climate Change obligations the move to a low carbon economy.

3.5 Transport Related Planning Policy

The European Commission Proposal (January 2013) for a Directive of European Parliament and of the Council on the development of alternative fuels infrastructure proposes a minimum of 2200 publicly accessible EV charging points in Ireland by 2020. With Ireland's natural advantages in terms of wind and other renewables a large proportion of the power used by electric cars will be carbon free in the future.

The establishment of EV infrastructure by ESB and the associated EV usage both nationally and internationally aligns with the key principles and benefits of sustainability and the National Climate Change Strategy on reduction of emissions. We submit that the NPF supports the positive steps taken to date with the inclusion of policies promoting a low carbon future and clear policies to promote, encourage and facilitate the use of sustainable modes and patterns of transport. This is critical to the development of resilient urban settlement and the transition to a low-carbon sustainable Ireland.

4. CONCLUSION

ESB welcome the NPF and its ambitions to deliver sustainable development, long term economic growth and a plan for tackling climate change. Investment in infrastructure is crucial to the economic and social well-being of our country. Such investment creates jobs, stimulates economic activity and provides modern, efficient facilities to provide the services that people need including healthcare, education and community services amongst others. There is a significant multiplier effect from investment in infrastructure which means that it stimulates growth in the local economy. It is also necessary to support EU and national policy on Climate Change adaptation and mitigation.

ESB is implementing energy strategies that support the transition of Ireland to a low-carbon and ultimately post-carbon economy to become a competitive, resilient and sustainable region. We request that due consideration is given to the issues raised in this submission, most particularly;

- The final Plan must ensure that the long-term operational requirements of existing utilities including Power Stations are protected. The importance of existing infrastructure and the associated Power Generation, Transmission and Distribution operations are strategic and national in nature. Incremental development, additional plant, new connections, environmental or performance enhancement works are 'location tied' to the established sites and cannot be carried out at alternative locations. Accordingly, provision must be made to accommodate the on-going development and strengthening of these assets at these locations.
- The provision of infrastructure can be planned to match future demand and the NPF policies should reflect that, in principle, they are supportive of infrastructure development where there is a clear requirement.
- Proposals for capital spending on new energy infrastructure should also be considered in the context of long term benefits taking account of security of supply and Ireland's Climate Change obligations the move to a low carbon economy.



- There have been excessive delays ascribed to the “planning system”, particularly in relation to delivery of larger infrastructural projects. It is critical that the substantial investments in infrastructure are cost effective and infrastructure is delivered in a timely manner. Finality must be brought to the development consent process so that there a degree of certainty around timelines for completion of projects. Therefore, proposals in the NPF such as *Strategic Energy Zones or Corridors* should be further developed to address the inter-related challenges around large scale infrastructural projects.
- We submit that a specific statements be included supporting the roll-out of EV recharging infrastructure, parking provisions for EV’s and promoting a low carbon future and clear policies to promote, encourage and facilitate the use of sustainable modes and patterns of transport.

If we can be of any further assistance, or if you wish to clarify any of the issued raised in this submission, please contact the undersigned.

Yours sincerely,

Gerard Crowley | Planning and Asset Manager | ESB Business Service Centre

████████████████████ | www.esb.ie