Electricity Transmission Infrastructure Development

Roads Sector Engagement Framework

February 2025

Contents

Revision History						
Revision	Date	Description	Originator	Reviewer	Checker	Approver
Final	11/02/25	Final	FL	RD	SD	LO'F

Definitions

Steps	The stages of an EirGrid project, as part of EirGrid's Framework for Grid Development.
Interactions	An engagement opportunity proposed between Electricity Sector (EirGrid/ESBN) and Roads Sector (TII/LAs/RMO). This can mean emails, a meeting, or a series of meetings.
Electricity Sector	Electricity Sector refers to ESBN and EirGrid collectively, in this document. See Section 1 for responsibilities.
Road Stakeholders / Roads Sector	Road Stakeholders or Roads Sector refer to TII, Local Authorities, RMO and DoT collectively, in this document. See Section 1 for responsibilities.
Emerging Best Performing Option	If a dominant option exists, it can be identified as an Emerging Best Performing Option until further consultation and analysis is completed and adequate confidence on the option is achieved.
Emerging Best Performing Technology Option	Defined at Step 3 and usually refers to the option of overhead line or underground cable as a technology option for the proposed project.
Emerging Best Performing Route Option	Defined at Step 4a and refers to a developing route option which is preferred by EirGrid but is still subject to further design, survey, consultation, and assessment.
Best Performing Option	Following analysis and consultation, and in some cases further refinement, the Emerging Best Performing Option (can be technology or route option) is confirmed as the Best Performing Option. This is the option that will be taken forward.
Multi Criteria Assessment (MCA)	EirGrid process to facilitate a balanced consideration of the technical, economic, environmental, social and deliverability aspects of a development project.
Agreement in Principle	Following a collaborative process pre-planning submission, it would be expected that TII / Local Authorities would provide a 'Statement of Agreement in Principle' to the Planning Application, which may be accompanied by a schedule of comments and is provided without prejudice to the resolution of points of detail particularly arising from the Road Opening License process as the design develops and in line with the Planning Decision.
Preliminary Design	This is the level of design detail that is included in the planning submission. The Preliminary Design will show sufficient detail of the project to identify significant issues and impacts, identify key mitigation measures and establish feasibility of construction. This level of design is the responsibility of EirGrid but will include inputs and review from ESBN.

Detailed Design	The detailed design is the responsibility of ESBN and is undertaken post-planning and pre-construction. It is a greater level of design detail and allows for input from the Contractor should it be required. EirGrid will provide input to ensure consistency with the Preliminary Design.
Transmission Network Projects	The electricity supply network is made up of the Transmission Network and Distribution Network. The Transmission Network covers 400 kV, 275 kV, 220 kV and the majority of 110 kV lines and is operated by EirGrid. The Distribution Network covers 110 kV in the Dublin area, 110 kV tail-fed stations and nationwide 38 kV, 20 kV, 10 kV and low voltage and is operated by ESBN. Transmission Network Projects are 110 kV and above projects planned and operated by EirGrid.
Project Communication Plan	This will be a record of all stakeholder engagement on the project. It will be maintained by EirGrid from Steps 1 – 5 and handed to ESBN to maintain at Step 6. The plan will be a record of interactions, key issues, and points of agreement.
Standing Committee	A senior 'Standing Committee' arrangement whereby the two sectors could review upcoming projects and the potential for synergies or collaboration with other national infrastructure developments. It could also serve to 'troubleshoot' difficulties arising from experience on projects. The two sectors will review existing structures and their 'Terms of Reference' and agree the best mechanism for this strategic level engagement involving senior personnel, for example the existing tri-partite 'TII ESB EirGrid Protocol (October 2020)'.
Public Road	A road over which a public right of way exists and the responsibility for the maintenance of which lies on a road authority.
Road	This includes any bridge, pipe, arch, gully, footway, pavement, fence, railing or wall forming part thereof.
Roadway	That portion of a road which is provided primarily for the use of vehicles.

1. Introduction and Context

1.1. Background to Grid Development

The Climate Action Plan (2023 and 2024 versions) sets out a roadmap for delivery of Climate Targets for key sectors across Ireland. The energy and transportation sectors have agreed to challenging targets and both sectors are committed to working collaboratively to deliver on these for the electricity network, requiring new approaches to projects, their coordination and stakeholder consultation.

The electricity sector plays an important role in the decarbonisation of other sectors through electrification, including transport, heating, and industry. The Climate Action Plan commits the electricity sector to delivering on our climate commitments by 2030 and acknowledges the role that road infrastructure will play in delivering on these commitments, where this is the "optimal solution" (Climate Action Plan 2024).

EirGrid has published "Shaping our Electricity Future"[1] which sets out a pathway to delivering on the 2030 Climate ambition. A fundamental element of this is supporting electricity infrastructure delivery (transmission network). In that regard, EirGrid and ESB Networks play significant roles. The electricity networks plan as part of 'Shaping our Electricity Future (SOEF)' sets out the network upgrades and new networks required to support the deployment of renewable energy across our island. A portfolio of projects is being advanced to support the Climate Action plan delivery, some of which will be underground cables.

Should the best performing technology option for a new grid development project be confirmed as a new circuit, EirGrid is committed to taking forward an overhead line and an underground cable option (assuming technical viability) for appraisal. From the start of this process, EirGrid will engage with the Roads Sector as set out in this Engagement Framework to ensure that potential impacts of high voltage transmission underground cable circuits on public roads and associated stakeholders' issues are identified, considered in project optioneering and mitigated where an in-roads option is chosen. Where a road may also be a planned corridor for future public transport services or utility infrastructure, these may have additional specific requirements to consider and address through consultation.

The Roads Sector has highlighted concerns around the impacts of high voltage transmission underground cable circuits installed in public roads in terms of road asset integrity, performance and roads operations, traffic safety and disruption as well as associated costs and liabilities.

Regional and local roads are recognised as offering potential for high voltage transmission underground cable circuits, where shown to be feasible, provided arrangements for traffic accommodation (including temporary diversion arrangements) are suitable, the characteristics of road structures, ground conditions, drainage systems and other services are addressed, and the road reinstatement provisions are appropriate.

Where high voltage transmission underground cable circuits are routed within the high speed / high traffic volume network (including the Motorway and National Road network) there can be particular additional economic, social and roads safety risks.

Each route requires site specific consideration, taking account of the road environment, geotechnical, characteristics, traffic, land ownership and local conditions. Road structures (e.g. bridges, culverts) have particular issues with implications for high voltage underground cable routing.

These factors emphasise the importance of full engagement with the Roads Sector throughout all project development stages.

[1] https://www.eirgrid.ie/shaping-our-electricity-future

1.2. HV Interface Forum

To support development of high voltage electricity networks, a 'HV Interface Forum' ('the HV Forum') was initiated between Key Partners within the Electricity and Roads Sectors to bring together stakeholders in open dialogue to establish the ways of working that will deliver on the Climate Action Plan ('CAP 24') . This recognises the unique challenges presented by the accommodation of Transmission Network Projects in public roads, where this is nevertheless the optimal solution.

The Forum developed a high level 'Cooperation Agreement' in August 2023 which was agreed by all parties engaged in the Forum and set out the following Key Principles:

1. All parties acknowledge that underground routing along public roads infrastructure, where practical, is a key enabler of the EirGrid's "Shaping Our Electricity Future".
2. All stakeholders are committed to working constructively towards accommodating the electricity transmission infrastructure, provided that significant roads impacts are objectively identified and addressed.
3. Early engagement has been identified as a key requirement whereby roads issues and impacts are identified and addressed from the outset of each project.
4. EirGrid will fully assess route options, including alternatives to public road where appropriate, in order to optimise the schemes. Under the Forum, a joint working framework will define protocols for engagement between electricity and Roads Sectors through the project lifecycle.
5. Protocols will be developed in line with best practise so that electrical and road infrastructure can be effectively operated, maintained and repaired to deliver the separate mandates of electricity and Roads Authorities.
6. The Forum acknowledges the need for cost of participation by Roads Authorities in project delivery to be covered in project budgets.
7. Electricity transmission infrastructure systems in public roads creates the potential for future cost liabilities.
8. The Forum will seek to address protocols for addressing liabilities arising from operation of transmission Infrastructure in public roads.

This document will provide a roadmap for future Transmission Network Projects that will interact with public roads, providing for the necessary consultation and agreement between EirGrid, ESBN, and Road Stakeholders, without affecting their respective statutory rights and obligations.

The key stakeholders in the delivery of Transmission Network Projects in roads are:

- **EirGrid** – Transmission System Operator (TSO); operates and plans the development of the electrical grid.
- **ESBN** – As the licensed onshore Transmission Asset Owner (TAO) in Ireland, ESBN is responsible for managing and delivering the detailed design, construction and maintenance of the transmission network. ESBN and EirGrid work together to deliver Transmission Network Projects.
- **TII -** Statutory body with responsibility for the planning, supervision of works for the construction and maintenance of national roads and operation of light rail networks.
- **Local Authorities** - road authorities for all roads, national and non-national, within their functional areas with responsibilities including management, construction maintenance and licensing.
- **Road Management Office (RMO)**- shared service providing support across Local Authorities in roads asset management and licensing of road openings.

- **Department of Transport (DOT) Regional and Local roads** – the Government Department responsible for transportation policy, disbursement of the financial resources provided by the taxpayer for investment in our transport system including public transport. Active travel, rail and road networks and safe conduct of transport on land.
- **Department of the Environment, Climate and Communications (DECC)** - the Government Department responsible for the development a competitive energy supply industry, to ensure security and reliability of energy supply, and to develop energy conservation and end-use efficiency.
- **Commission for Regulation of Utilities (CRU)** - EirGrid is the body licensed by the CRU to act as TSO, and to offers terms and levies charged to market participants to connect to and use the transmission system regulated by the CRU. ESBN is licensed by the CRU as the Transmission Asset Owner (TAO) and is responsible for carrying out the maintenance and construction of the system.

1.3. Engagement Document Context

This Engagement Framework will be operated to deliver the following outcomes:

- A clear engagement protocol with all parties understanding the routing principles and criteria applicable to project selection, expected level of information required for objective decisions at each interaction and the basis of decision making process at each stage.
- A consistent engagement process from commencement across all Transmission Network Projects, that have the potential to impact public roads.
- An agreed protocol for effectively addressing relevant issues affecting road infrastructure and utilities adopting appropriate avoidance or mitigation measures and agreed standard details.
- Transparency on both the Multi-Criteria Assessment (MCA) and any infrastructure routing decisions arising from its application.
- Reduced delay in consultation between all parties and therefore costs, while delivering more robust projects capable of implementation within Planning Permission constraints, including the required terms for granting Road Opening Licenses and managing road safety. In Steps 1-5, this will be led by EirGrid and in Step 6 this will be led by ESBN.
- Providing for collaborative management of the Construction and Operational phases in-line with agreed protocols referenced herein.

The HV Forum has a number of Working Groups and this engagement document defines an overarching approach which should be read alongside outputs from Working Group 4 (Liabilities & Costs) and Working Group 5 (Enduring Standards & Technical Protocols).

The engagement framework in this document addresses the need for effective interaction with the relevant stakeholders/organisations through the stages of Transmission Network Projects. It acknowledges that the impacts and risks in public roads will be effectively captured, understood and addressed as an integral part of the project development process. There are a range of constraints that will need to be examined, including inter alia, structures including arch bridges, existing and planned utilities/services, available verge widths, drainage conditions and requirements and local ground conditions, notably bog ramparts. The process will also address traffic management and diversion options and their socio-economic impacts, haulage routes, and other construction conditions.

This document recognises the handover of grid projects from EirGrid to ESBN post Statutory Consents, when projects should exhibit sufficient certainty of deliverability supported by satisfactory consents / approvals (where they apply). Where projects involve roads interfaces, the objective is to have sufficient design and project development underpinning submissions for statutory consents to give a high level of assurance on the choice of project, its boundaries and constraints. ESBN will then develop the design specification and tender documents, incorporating the consent conditions (if they exist) and arrangements agreed with Roads Authorities, leading to appointment of a contractor (Design and Build contract). The detailed design, construction programme and communications plan will be progressed by the Contractor under ESBN

supervision leading to final agreement on Road Opening License (ROL) terms consistent with previous interactions.

EirGrid and ESBN as electricity undertakers have statutory rights for exempted development. In cases where grid development is proposed but is defined as exempted development, EirGrid will follow its Grid Development Framework to Step 5 to conclude in a Determination of Declaration of Planning Exemption. In such cases, where high voltage transmission underground cable circuits may impact public roads, the full provisions of this Engagement Document will otherwise apply to ensure final agreement on Road Opening License (ROL) terms.

The focus of this Engagement Document is Transmission Network Projects where there is an option that would impact public roads (e.g. underground cable). EirGrid has publicly committed to considering underground cable as an option until Step 4[2]. This Engagement Document and its interactions are to be followed until underground cables affecting public roads are ruled out as an option for any Transmission Network Project.

1.4. Engagement Protocol - Steps

EirGrid operates a Framework for Grid Development which provides a stepped approach to Transmission Network Projects. Progression is divided into six distinct steps, focussed on building the case for the project, identifying the best performing option, gathering information and delivering the assessments required to inform the consenting, licensing and decisions necessary to deliver the project.

The steps of the EirGrid's Framework for Grid Development and the decisions made at each step have been used as the basis of defining engagement with Road Stakeholders. Key to this Engagement Framework will be the appropriate discussions or interactions at key points in Transmission Network Projects where the EirGrid Project Team will engage in detail with the relevant Roads Stakeholders on the consideration of options leading to decisions at each step.

In this document, we reference 'Strategic Interactions' being high level programme wide engagements and 'Project Interactions' relating to the detail of an individual project once a cable solution has been selected.

The proposal for Strategic Interaction would be enabled by a senior 'Standing Committee' arrangement whereby the two sectors could review upcoming projects and the potential for synergies or collaboration with other infrastructure developments. It could also serve to 'troubleshoot' difficulties arising from experience on projects. The two sectors will review existing structures and their 'Terms of Reference' and agree the best mechanism for this strategic level engagement involving senior personnel, for example, the existing tri-partite ESBN/EirGrid/TII protocol.

Project Interactions would apply at project level, involving the EirGrid / ESBN project team and relevant Roads Stakeholders representatives, meeting regularly through the framework set out in this document, ensuring that roads interests are fully understood and addressed as far as practicable in arriving at the optimum high voltage scheme.

A roadmap is shown in Figure 1 and demonstrates the number of interactions which will, typically, be held on a Transmission Network Project, shown as a chevron shape: 

There will be a series of interactions before and after each key milestone, which are shown as a box and arrow: 

This process will enable EirGrid to develop robust Transmission Network Projects that are capable of being delivered with the required level of certainty for Construction Contractors, provide for long term operation of both roads and electricity assets, while ensuring safety of workers and road users. Figures 1 and 2 show the EirGrid project development process and the outline arrangements for engagement with Roads Sector.

[2] The EirGrid document "Ireland's Grid Development Strategy" states that "*We have always considered underground technology during initial project research and technical analysis. We are committed to engaging with the public before we identify a preferred technology. This consultation will explain the transmission technology option, and then seek feedback from stakeholders. This will help us to determine the best transmission technology for future projects. We are committed to looking for alternative options that may avoid or reduce the need for new overhead lines.*" (Statement No. 2 Page 29 - EirGrid-Draft-Grid-Development-Strategy.pdf).

Figure 1: Roadmap of HV Forum Engagement for Transmission Network Projects

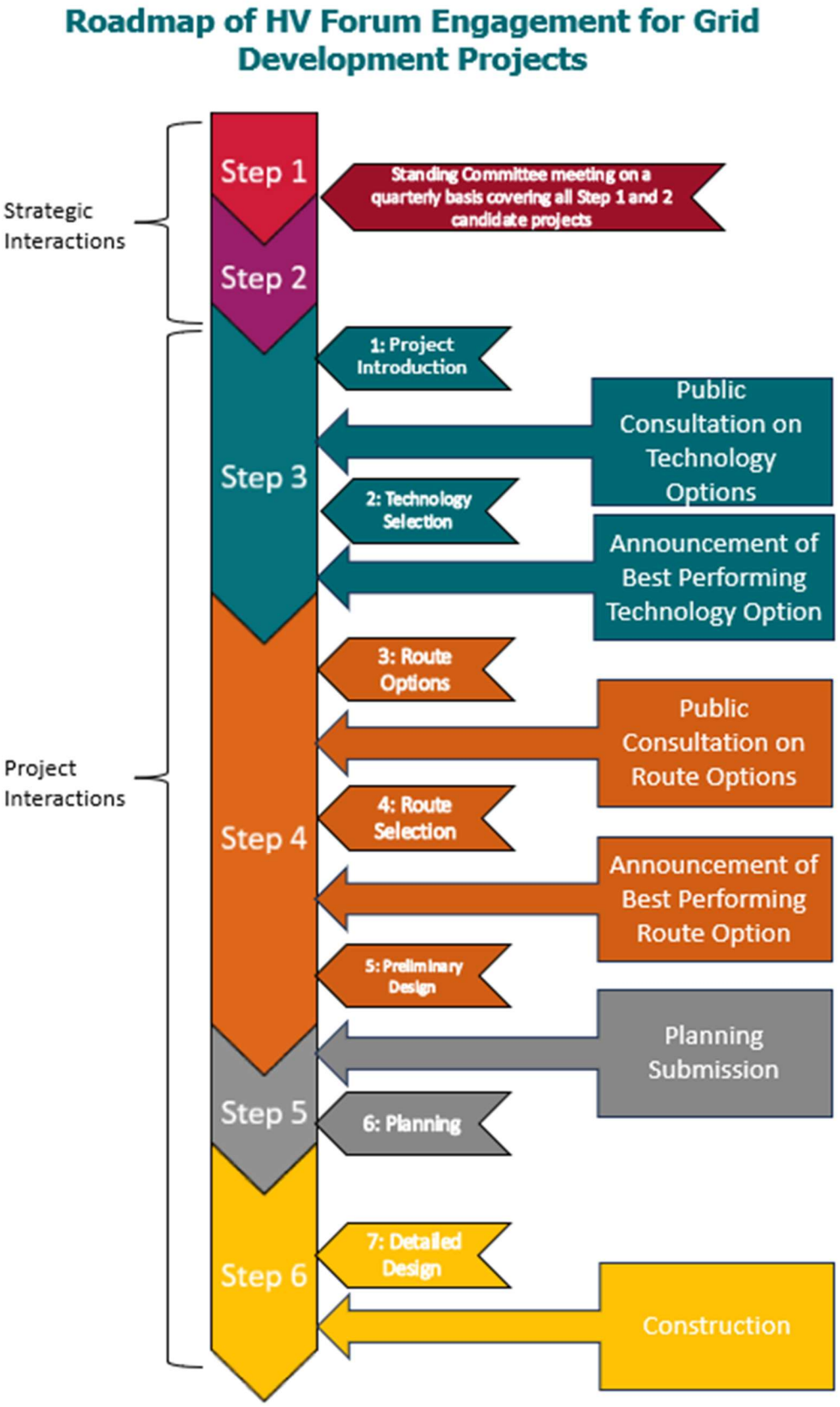
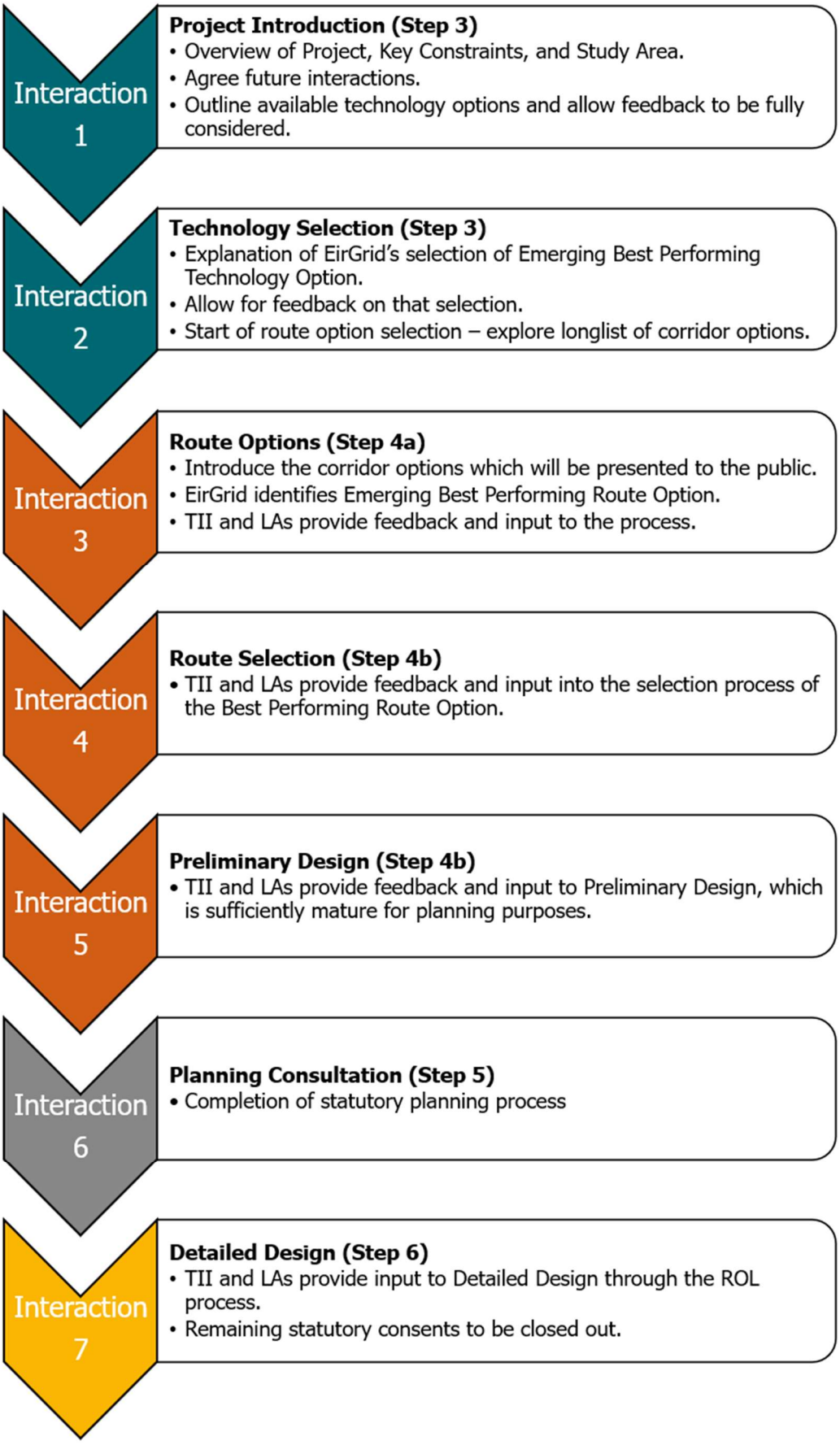


Figure 2: Summary of Project Interactions



2. Steps of HV Transmission Development

2.1. Process Overview

EirGrid's Framework for Grid Development process provides for a stepped approach to the management and delivery of proposed Transmission Network Projects. Progression is divided into six distinct steps, focused on building the case for the project, identifying the best performing route, gathering information and delivering the assessments required to inform the consenting and licencing decisions necessary to build the project. Table 1 outlines the key steps of the current Framework for Grid Development and Table 2 provides further detail on the outcomes of each step.

Table 1: Steps of the EirGrid's Framework for Grid Development.

Step 1	How do we identify the future needs of the electricity grid?
Step 2	What technologies can meet these needs?
Step 3	What's the best option and what area may be affected?
Step 4	Where exactly should we build?
Step 5	The Planning Process
Step 6	Construction, Energisation and benefit sharing

These project development steps are well recognised in infrastructure planning allowing for a gradual approach with stakeholder and public consultation at key points throughout the projects. As a project evolves through the steps, the process involves a narrowing of options with an increased level of design detail, understanding of conditions and constraints to be managed. The project begins with a concept solution leading to mapping of constraints. Evaluation of these constraints leads to initial corridor options for linear projects, the gradual emergence of a shortlist of corridors and ultimately determination of a preferred solution. During the latter steps, the level of project definition increases along with the availability of data likely to influence the design. Collection of this data is enabled by effective engagement supplemented by detailed site surveys (topographic, geotechnical, special structures and conflicting services). In all of these stages, effective engagement with Roads Authorities is recognised as essential where roads interfaces arise.

A comprehensive and consistent approach to decision making is used throughout the various steps in the EirGrid's Grid Development Framework. The approach, using MCA, facilitates a balanced consideration of the technical, economic, environmental, social, and deliverability aspects of a grid development project. These five criteria used in the performance matrix align with EirGrid's statutory obligations. The criteria are fleshed out for each project with relevant sub-criteria that reflect the issues and impacts.

The MCA approach also accords with the requirements of the Environmental Impact Assessment (EIA) Directive 2011/92/EU as amended by 2014/52/EU as transposed into national legislation. There is a requirement for all projects requiring an EIA to have assessed all "reasonable alternatives". Not all Transmission Network Projects will require an Environmental Impact Assessment, however the MCA approach

allows EirGrid to ensure that all reasonable alternatives are considered from the early steps on each project, leading to a robust project regardless of the requirement for EIA.

The MCA criteria and typical sub-criteria are shown in Figure 3, and an example of its application is shown in Figure 4 below. The MCA criteria are applied during two distinct steps of the project. Initially in Step 3, the MCA process is applied to select the best performing technology and feasible corridors to suit the requirements of the project. Subsequently the MCA criteria are applied during Step 4 to choose the best performing route for the technology chosen in Step 3.

By integrating the understanding of the Roads Sector issues and conditions, the MCA criteria will objectively reflect the optimum choices taken forward at each step. There are a large number of interfaces between roads and the Transmission Network Projects affecting pavement, verge conditions and existing services, drainage provision & maintenance, planned improvements or services. All interfaces will be explored on a case by case basis and addressed accordingly within the MCA.

Figure 3: EirGrid MCA Criteria and Typical Sub-Criteria

Figure 4: EirGrid Typical Matrix Format

Assessment Criteria	Option 1	Option 2	Option 3
Economic			
Technical			
Environment			
Socio-Economic			
Deliverability			

This table is indicative only and is not based on an actual project.

2.2. Key Routing Principles for High Voltage Transmission Underground Cable Projects

EirGrid follows certain key routing principles that inform the best performing options for high voltage transmission underground cable projects. These routing principles, chosen to give a high level of confidence of deliverability, are consistent with the objective to identify the 'optimal solution' as identified in CAP 24, determined through the MCA process with reference to the data captured through stakeholder engagement and project surveys. The routing principles are:

- Routes will generally follow linear corridors (whether within existing infrastructure corridors or proximate to them) in order to achieve programme deliverability, safe and effective accessibility for the construction operations and for future maintenance by the asset owner and operational contingency.
- Routes will be selected:
    - to give a high level of assurance as regard meeting the technical requirements and approved standards adopted by the Electricity Sector for high voltage infrastructure. These conditions are enabled by following linear sites that can offer sound surfaces for construction operations, predictable ground conditions, connectivity to haulage routes and construction depots.
    - to minimise the risk, impact, or effect on environmental or heritage sites or where the works would be at risk of conflict with other regulatory obligations or public / community interests likely to result in unpredictable delays and / or costs.
- Routes will be assessed:
    - For technical performance including implications for future performance of road pavement, road structures and taking account of resilience of the assets (road and electric) for the effects of climate change.
    - for performance on socio-economic criteria including commercial and community impacts, disruption to local activities, traffic impacts and public safety, agricultural enterprises, impacts on other utilities and local services.

- For overall economic performance including implementation and life-cycle costs, realisation of benefits within target timelines, meeting Climate Plan objectives, economic impacts on roads or other linear corridors, other stakeholders and enabling energy security.

In considering how to deliver the scale of HV infrastructure required to meet climate targets in the timelines adopted by Government, road corridors have thus been identified as a key enabler of the programme, where practical. The optimum route will be based on giving EirGrid maximum certainty of timely delivery, without compromising road assets, their safe operation and maintenance, where applicable. The optimum route may be achieved within the roads limits (verges, carriageways where possible) or off-line from the road or an optimum combination of both.

Where impacting private lands, EirGrid always endeavours to procure wayleaves by consent, with consideration of compulsory acquisition where that option is necessary given all relevant factors.

Development of an agreed Code of Practice (Working Group 5) would provide further detailed technical guidelines for use in project development where roads interfaces arise.

2.3. Key Roads Sector Constraints for High Voltage Transmission Underground Cable Projects

The following key constraints inform the best performing options for high voltage transmission underground cable projects, where they impact public roads:

- Wherever possible, joint bay structures are best located off the carriageway in verges, open spaces, or adjacent sites; and where they must be under carriageway, joint bay structures will be to relevant electrical standards and in compliance with published roads standards, , at least single lane traffic should be maintained including provision of temporary passing bays as required.
- Save for exceptional circumstances, high voltage transmission underground cables should not be sited on or attached to existing roads structures, masonry bridges/ culverts and the like. Such structures require more complex maintenance intervention and upgrading that would be compromised by the proximate presence of live high voltage systems.
- The majority of roads in Ireland have ‘legacy’ pavement and drainage arrangements that evolved over decades and require intrusive interventions in response to emergency failures (e.g. slips, flood damage), increased capacity needs or in response to climate effects or changes in loading. These impacts can be partly mitigated by a high standard of pavement reinstatement, strategic upgrade of vulnerable structures or utilities, or other agreed appropriate reinstatement standards.
- Public roads can have irregular geometric characteristics which result in construction challenges of maintaining safe traffic movement, meeting essential community needs or where available road-space is occupied by existing services or designated for planned future utilities.
- The presence of high voltage transmission underground cables will likely involve additional technical challenges and costs in respect of future road maintenance and major upgrade works. These impacts will be further addressed in the Transmission Infrastructure Development – HV Forum WG4 protocol (Costs & Liabilities).

The following sections outline the sequence of steps, related engagements and processes that will be followed by EirGrid / ESBN working with the Roads Sector, to deliver sustainable and resilient high voltage transmission underground cable circuit projects having regard to the above criteria and considerations.

Table 2: Outcome and Deliverables of each Step, from EirGrid's Framework Approach to Project Delivery

Step	Outcome	Deliverable
Step 1	The output of Step 1 is that a confirmed need for an identified transmission network issues with suggested candidate solutions to quantify the 'project scale'.	• EirGrid Energy Scenarios • Tomorrow's Energy Scenarios Needs Assessment (TESNA) • Needs Ranking Report
Step 2	The key output of Step 2 is a shortlist of technical solutions that meet the power need of the grid. Note, these solutions are at schematic level only. Route options of feasible technical solutions to be appraised at step 3.	• Short list of technology options • Technology options selection/justification report
Step 3	The key output of Step 3 is the identification of a best performing technology solution and corresponding corridor study area to meet the need for the development of a project. At this stage, route corridor(s) are identified from high level options against mapped constraints (topography, environmental, heritage, land use, etc)	• MCA on the technology options • Best performing technology option report (Technology selection report including corridor study area)
Step 4 (a & b)	The key output of Step 4 (in a number of stages) will be a specific project, the nature, location and extent of which is clearly defined and mapped. A critical deliverable in this step is engagement with affected or potentially affected landowners and communities, and a documented capture of feedback arising from engagement. A report documenting the work undertaken in this step will be collated, published and consulted on. Any feedback from such a consultation will be analysed, collated, published and will inform the decision made at the gateway	• MCA on the route options • First the route options need to be presented, data collected, issues considered etc. • Emerging best performing route identified from shortlist and subjected to detailed consultation before refinement and final selection using informed MCA reflecting the project characteristics • Best performing route option report (Route selection report)

Step 5	The key output of this step is a decision from the consenting authority. Assuming a statutory application for consent is required, the key activities involve the preparation and signoff of the various application plans and particulars.	• Determination of Declaration of Planning Exemption, or
		• Statutory planning application (if required), including:
		  ○ Planning report
		  ○ Environmental Impact Assessment Report (EIAR)
		  ○ Planning application drawings
		  ○ All other documentation required for planning application.

Step 6	The key output is the completed and energised project, as well as all associated documentation, including as built records and other information. This step is the responsibility of ESB Networks.	• Engagement with ESB Networks for Construction stage activities. • Detailed Design (by ESB Networks) • All other licences: ROL, Foreshore, Tree Felling, Crossing, etc

3. EirGrid / ESBN / LA / TII Interactions

3.1. Strategic Interactions (Step 1 – 2)

Based on its Framework for Grid Development, EirGrid establishes individual projects at Step 3. Steps 1 and Step 2 are technical steps which establish challenges that the grid faces, the need for interventions, whether a project is required to address the challenge, and what form that project might take. Because of their high level technical nature and the absence of a specific project, meaningful Project Interactions are unlikely to arise at Step 1 and Step 2.

Emerging Projects in these early development stages are appropriate for discussion as Strategic Interactions (Standing Committee). These discussions would ensure all parties are informed of potential emerging projects and have the opportunity to identify synergies where possible. Synergies could include upcoming projects where shared corridors could be established from the outset; identifying new technologies and testing opportunities; high-level problem solving, etc. These meetings would also assist in troubleshooting, to help solve cross-sectoral issues as they arise.

The two sectors will review existing structures and their 'Terms of Reference' and agree the best mechanism for this strategic level engagement involving senior personnel, for example, the existing tri-partite ESBN/EirGrid/TII protocol.

3.2. Project Interactions (Steps 3 – 6)

At a project level, it is proposed to have a series of interactions at each step of the Transmission Network Project beginning at Step 3. The term 'interaction' has been used to be inclusive of all engagement at a Step ranging from emails, a meeting, or a series of meetings and workshops. The approach and timing of the interactions will be agreed and made appropriate to the nature of the Transmission Network Project, its location, the potential issues, and the wishes of all parties on how to approach the interactions.

Appendix 1 of this document provides a suggested framework for the interactions, outlining how meetings will be arranged, chaired, minuted and how and when data will be exchanged. The approach is indicative and will be agreed at Interaction 1 (Project Introduction) and can be modified as the Transmission Network Project develops, subject to agreement.

Through Interactions 1 to 5, which occur during steps 3 to 4, a Multi Criteria Analysis (MCA) process will be developed by EirGrid for the specific project, with data compiled under the 'Criteria' based on the project characteristics. Where Transmission Network Projects interface with public roads, this process will capture relevant data on the related socio-economic, technical and environmental impacts for inclusion in the analysis. The Multi Criteria Analysis will be updated and used at appropriate times in the process, designed to identify the optimum project selection based on the information available. The input of the Roads Sector will be incorporated into this analysis.

At Interaction 5 (prior to lodgement of a planning application), the objective is to review the output of the process up to 'Preferred Scheme' and to facilitate confirmation of 'Agreement in Principle' as defined (see Definitions) from TII and the LAs prior to planning submission. At this point in the project, the requirement is for a well-defined project with sufficient design detail and underpinning data to provide confidence that the process will result in an approved project that is capable of being implemented.

This Statement of 'Agreement in Principle' would:

a) not preclude any formal submission, including suggested planning conditions, where appropriate, being made to the competent authority by TII and LA in respect of the planning application.

b) Recognise that key concerns raised by TII and Local Authorities have been addressed with an acceptance that there may be further detailed resolution required through planning conditions or at the Detailed Design / Road Opening Licence finalisation stage (Step 6).

This confirmation of “Agreement in Principle” is proposed between EirGrid, TII and Local Authorities prior to publication of the statutory consent application for the Transmission Network Project. This will reflect the work done, the joint participation in the project development and a shared understanding of how the project will be delivered. It does not preclude the later resolution of matters of design and construction detail to be addressed and agreed as part of the Road Opening Licence process, when the final design detail, construction programme and other key detail is available.

The “Agreement in Principle” is not a statutory document and would not affect any parties’ statutory rights or obligations. It is an objective or aim for the project team and is meant to indicate that all parties have worked together to identify the optimal solution for the project, as far as is possible.

Table 3 provides a summary of the key outputs from each of the six steps in EirGrid’s Framework and highlights the interactions that will take place at each step. The following sections of this chapter (Section 3.3 – 3.9) provide further detail of the nature of each interaction. It is acknowledged that the number of interactions and their nature will vary depending on the location, nature, and complexity of the proposed project.

The first interaction (Interaction 1 – Project Introduction, undertaken early in Step 3) will provide an opportunity for the format and number of interactions to be discussed and agreed by all parties. Depending on the Best Performing Route Option, Interactions 5-7 may not be required, for example if an overhead line is chosen.

This Engagement Document is a best practice methodology and does not affect any parties’ statutory rights or obligations.

Table 3: Summary of EirGrid's Framework and Interactions

EirGrid Project Step	Interaction	Interaction Outcome
Step 1 How do we identify the future needs of electricity grid?	Strategic interactions	At this Step, there is no specific project and any interactions will be strategic in nature. Quarterly strategic interactions will be undertaken to ensure all parties are kept fully informed of upcoming projects and to look for possible synergies.
Step 2 What technologies can meet these needs?	Strategic interactions	At this Step, there is no specific project and any interactions will be strategic in nature. Quarterly strategic interactions will be undertaken to ensure all parties are kept fully informed of upcoming projects and to look for possible synergies.
Step 3 What's the best option and what area may be affected?	**Interaction 1**	**Project Introduction** Will occur before any public announcement/consultation event on technology options. It is to introduce the programme; discuss the technology options available, proposed study area and key constraints; allow feedback on the options to be fully considered; and agree the nature of subsequent interactions.
	Interaction 2	**Technology Selection** It is to explain EirGrid selection of Emerging Best Performing Technology Option, allow for feedback on that selection prior to public announcement/consultation event on the technology options and to start input to route option selection and explore longlist of potential route options (corridors at this stage).
Step 4a Where exactly should we build?	**Interaction 3**	**Route Options** Will occur before any public announcement/consultation event on route options (corridors). It is to discuss the shortlist of route options, discuss the Emerging Best Performing Route Option, and allow for feedback and input to the process.
Step 4b Where exactly should we build?	**Interaction 4**	**Route Selection** Will occur before any public announcement/consultation event on the Best Performing Route Option. It is to allow input into the selection process of the Best Performing Route Option.
	Interaction 5	**Preliminary Design** Will occur before planning submission. It is to allow input on the preliminary design, including all design aspects.
Step 5 The Planning Process	**Interaction 6**	**Planning Submission** Formal consultation on planning submission undertaken by An Bord Pleanála (ABP)/Local Authority.
Step 6 Construction	**Interaction 7**	**Detailed Design (ESBN)** Will commence prior to construction and will continue through the construction phase. It is consultation with ESB Networks on Detailed Design and Construction.

3.3. Interaction 1 – Step 3 - Project Introduction

Purpose:

- Project Introduction.
- Agree future interactions.
- Outline available technology options and allow feedback to be fully considered.

Who:

- EirGrid, ESBN, TII, Local Roads Authorities + others as identified specific to project.

When:

- Early in Step 3 after completion of Step 1 and Step 2. Interaction 1 will occur ahead of Announcement of Study Area and possible Technology Options/Public Consultation for projects that are considering underground cable options in the road.

What:

- For Transmission Network Projects where underground cables in roads may be considered as an option.
- Introduction of Transmission Network Project by the EirGrid Project team, with indicative timelines.
- Overview of the proposed study area and available technology options (e.g. overhead line, underground cable, etc). Indicative Layouts and route corridors to be provided at Step 4a following surveys, design and assessment, and consultation with potentially affected landowners.
- General desktop information on the roads and land-use characteristics that might influence an underground route.
- Explanation of EirGrid Multi Criteria Analysis (MCA) process and development of sub-criteria detail
- Explanation of how the Best Performing Technology Option will be selected through MCA.
- Request for key constraints; existing road infrastructure; known roads projects in the study area; and for feedback to the MCA process.

Intended Outcomes:

- TII and Local Authorities engaged early in the project.
- The approach to selecting the Emerging Best Performing Technology Option is outlined to TII and Local Authorities and their feedback is incorporated into the selection process.
- Roads Sector to offer relevant desktop information on general roads and local land-use conditions, environmental and other factors. Details of intended roads upgrades may be particularly useful. Approach to future interactions is to be agreed.
- Roads Sector/local knowledge is captured to effectively inform technology option selection and further feasibility study and constraints analysis.

3.4. Interaction 2 – Step 3 – Technology Selection

Purpose:

- Explanation of EirGrid selection of Emerging Best Performing Technology Option.
- Allow for feedback on that selection.
- Start input to route corridor option selection.

Who:

- EirGrid, ESBN, TII, Local Roads Authorities + others as identified specific to project.

When:

- Late in Step 3, following step 3 feasibility studies, prior to Announcement of Emerging Best Performing Technology Option /Public Consultation.

What:

- Presentation on the findings of the feasibility studies and constraints analysis, to explain which Technology Option is identified as the Emerging Best Performing Technology Option (e.g. overhead line, underground cable, etc).
- TII and Local Authorities will review and provide comments and observations for consideration.
- TII and Local Authorities to advise on any planned infrastructure changes in the study area, provide technical insight on existing infrastructure and technical input to multi-criteria analysis to inform Best Performing Route Option.
- EirGrid, ESBN, TII and Local Authorities to discuss the application of good practice guidance and identify any particular areas of concern.
- Based on the Technology Option selected, discussions will include design aspects such as joint bays, bridge crossings, drainage consideration, other utilities, etc. These design aspect discussions will continue at all subsequent interactions with the level of detail increasing appropriate to the project step.
- Long-list of potential route corridors to be discussed through the interactions. These potential route corridors would be subject to further work at Step 4a.

Intended Outcomes:

- The selection of the Emerging Best Performing Technology Option is explained to TII and Local Authorities, prior to public consultation.
- Public consultation occurs on the Emerging Best Performing Technology Option and is incorporated into the last round of the technology option MCA process.
- Best Performing Technology Option is selected, necessary EirGrid gateway approval is gained, and the project progresses to step 4 route selection.
- Clear timeline and agreement on further interactions through Steps 4-6.
- EirGrid updated on any latest road infrastructure developments if not previously known.
- Post Meeting: Input from TII and Local Authorities to inform creation of Route Options.

3.5. Interaction 3 – Step 4a – Route Options

Purpose:

- Review the study area, constraints mapping, opportunity corridors and their characteristics, including traffic, road asset characteristics and conditions, environmental features, likely ground conditions and other local factors.
- Introduce the shortlist of route options/corridors which are intended to be presented to the public following review of all options and omission of those not feasible.
- Review feedback and populate MCA criteria scoring, with due regard to roads and traffic information, likely impediments (bridges, culverts), other utility assets and any planned infrastructure.
- Identify Emerging Best Performing Route Option and key issues for consideration in the detailed surveys and design process.
- Allow for feedback and input to the process.
- Allow for input into targeted site investigations so that requisite information on potentially impacted assets is obtained for maintenance authorities.

Who:

- EirGrid, ESBN, TII, Local Roads Authorities + others as identified specific to project.

When:

- During Step 4a, ahead of Announcement of Route Options/Public Consultation.

What:

- Introduce the short-list of route options and discuss the Emerging Best Performing Route Option (EBPO).
- Overview of findings of investigations including any surveys, design and assessment, and consultation with potentially affected landowners.
- Explanation of how the Best Performing Route Option will be selected through Multi Criteria Analysis (MCA).
- Request technical insight on existing infrastructure, and technical input to multi-criteria analysis to inform Route Options, specifically including Residual Delay costs (traffic volumes and level of service impacts).
- TII and Local Authorities to advise on any planned infrastructure changes or critical constraints in the study corridor and provide technical insight on existing infrastructure.
- TII and Local Authorities will review the proposed route options and provide comments. EirGrid will consider and respond to all points raised.
- Based on the Technology Option selected, discussions will include design aspects such as joint bays, bridge crossings, drainage consideration, other utilities, etc. These design aspect discussions will continue at all subsequent interactions with the level of detail increasing appropriate to the project step.

Intended Outcomes:

- Engagement ahead of Public Consultation: Understanding of and input into the Route Options to be presented.
- Relevant economic and technical criteria relating to roads infrastructure to be considered as part of route assessment (including residual delay costs).
- Confirmation if succeeding protocol interactions need to continue as a result of the EBPO route selection.

3.6. Interaction 4 – Step 4b – Route Selection

Purpose:

- Allow input into the selection process of the Best Performing Route Option.

Who:

- EirGrid, ESBN, TII, Local Roads Authorities + others as identified specific to project.

When:

- Early in Step 4b, prior to finalisation of MCA and selection of the Best Performing Route Option.

What:

- EirGrid to present the outcome of the public consultation, enabling TII, Local Roads Authorities and other stakeholders to knowledgeably discuss the project with their own stakeholders.
- Provide technical insight on existing infrastructure, and technical input to multi-criteria analysis to inform Best Performing Route Option.
- TII, Local Authorities to advise on any planned infrastructure changes in the study corridor and provide technical insight on existing infrastructure.
- TII, Local Authorities will review the proposed route and provide comments and observations for consideration and amendment.
- TII, Local Authorities to raise any residual technical road concerns and queries to be considered and or mitigated as part the preliminary design in subsequent interaction.
- Based on the Technology Option selected, discussions will include design aspects such as joint bays, bridge crossings, drainage consideration, other utilities, etc. These design aspect discussions will continue at all subsequent interactions with the level of detail appropriate to the project step.
- If the technology and route selection have not determined in-road underground cables, the interactions can be halted at this point.

Intended Outcomes:

- All parties understand the route options, route selection criteria including multi-criteria assessment and the outcome of the optioneering process.
- All parties understand the outcome of the public consultation.
- Post meeting: Determination of the final route selection, key impacts and essential road mitigations to be assessed as part of the preliminary design and planning process.
- Confirmation if succeeding protocol interactions need to continue as a result of the Best Performing Option selection.

3.7. Interaction 5 – Step 4b – Preliminary Design

Purpose:

- Input to Preliminary Design, all design aspects.

Who:

- EirGrid, ESBN, TII, Local Roads Authorities + others as identified specific to project.

When:

- Before end of Step 4b.

What:

- Presentation of Preliminary Design: EirGrid will prepare and submit a 'Design Pack' which provides sufficient detail to allow TII, Local Authority Roads team, and other stakeholders to review and provide comment on the Transmission Network Project. Such details to be considered and agreed on a project basis and include (non-exhaustive):
    - Extent of Planning Application Boundary
    - Pavement condition and reinstatement
    - Road geometry and junction layouts
    - Drainage details
    - Geotechnical requirements
    - Traffic management
    - Other utilities
    - Structural requirements
- Review of Preliminary Design undertaken by TII and Local Roads Authorities with timely feedback issued to EirGrid, who will consider and respond to all comments.
- EirGrid and TII, Local Roads Authorities to discuss the Preliminary Design phase guidance (Working Groups 4 and 5 of the HV Forum – currently being drafted).
- Completion of Planning Documentation sufficient for the statutory consenting process, supported by 'Agreement in Principle' confirmation by the relevant Roads Authorities. This recognises that there will be further matters of detail to be agreed under the Road Opening License process as the detailed design is completed following project handover to ESBN. Meeting recommended for all sizes of in-road underground cable projects.

Intended Outcomes:

- Feedback received on Preliminary Pre-planning Design prior to submission to ABP/Local Council
- Clarification of specific areas of concerns and commitment from EirGrid to how they will be resolved.
- Agreement in Principle to the planning submission of the Transmission Network Project by TII and LAs followed by the submission of the planning application.

3.8. Interaction 6 – Step 5 – Planning Consultation

Purpose:

- Completion of statutory planning process, where applicable (i.e. not including exempted development)

Who:

- TII, Local Roads Authorities + others as part of the statutory planning process. EirGrid, as the applicant, remains involved.

When:

- Step 5, following planning submission.

What:

- Formal Consultation on planning submission undertaken by An Bord Pleanála (ABP) or Local Council, depending on nature of Network Project.
- Formal correspondence will be led by ABP or Local Council.
- Where requested, EirGrid may submit further information or provide a further submission to assist all parties.

Intended Outcomes:

- Completion of planning process, following on from the previous interactions through the project.
- Input to the planning conditions, formalising previous points of discussion, as appropriate.
- No formal objections to the planning submission.

3.9. Interaction 7 – Step 6 – Detailed Design

Purpose:

- Input to detailed design and engagement on construction constraints, monitoring requirements, traffic management, temporary diversions and local roads impacts, final reinstatement agreements.
- Remaining statutory consents to be closed out.

Who:

- EirGrid, ESBN, TII, Local Roads Authorities + others as identified specific to project.

When:

- Step 6, during the detailed design process by ESBN, at a stage where sufficient information is available, including understanding of programme and works schedule, precise location of works and impacts on roadworks. These interactions will be managed through the existing Road Opening Licence system.

What:

- On planning permission grant, the detail design is progressed based on the preliminary design including the discharge of relevant planning conditions and completion of site investigations. Remaining statutory consents required to carry out the construction are applied for by ESB Networks (road opening licences (ROL) etc). All conditions of these consents are also included in the completed detailed design.
- The completed detailed design will be submitted to the relevant road stakeholder for information prior to construction
- Meeting recommended for all sizes of the project. Multiple meetings with different stakeholders may be required, e.g. one with TII, Local Roads Authorities and other relevant stakeholders and one with ESBN to focus on handover. The mechanics of this is to be determined by the project team.

Intended Outcomes:

- View of detailed design
- Grant of road opening licences and any remaining Statutory consents.

Further details on the construction and operation are overleaf.

4. Construction Stage Collaboration

EirGrid are responsible for Transmission Network Projects from Step 1 -5. At Step 6, ESBN is responsible for managing and delivering the detailed design and construction and thereafter for maintenance. Both EirGrid and ESBN will be involved in all Steps of the Transmission Network Projects. To ensure continuity, a Project Communication Plan will be prepared. This will be a record of all stakeholder engagement on the project. It will be maintained by EirGrid from Steps 1 – 5 and handed to ESBN to maintain and develop to the needs of construction at Step 6. The plan will be a record of interactions, key issues, and points of agreement with stakeholders. The Project Communication Plan will ensure all key issues are addressed and a clear record is maintained.

Once the Transmission Network Project is energised, ESBN is responsible for the long term maintenance of the high voltage infrastructure to deliver the service requirements of EirGrid. ESBN is committed to continuing collaboration with the Roads Sector including delivery on the commitments and agreements made by EirGrid with the relevant Roads Authorities.

Prior to the handover from EirGrid and the commencement of the construction phase, ESBN will engage with all relevant stakeholders to develop and collate the criteria for design and construction.

This will include:

- Identifying project delivery restrictions and conditions
- Traffic Management scenarios required for safe delivery for the project.
- Project Communication Plan.
- Gather and collate criteria for the road reinstatement conditions (both temporary and permanent).
- Discharge of Planning Conditions.
- Expected project programme.

ESBN will apply for and hold the Road Opening Licence for the Transmission Network Project that directly impacts a public road and will be responsible for the final reinstatement of the road, engaging as appropriate with the RMO and road authorities as per the terms of the Road Opening Licences.

The construction and operation phases will be undertaken in-line with all relevant legislation and guidance documents, such as the Purple Book, Health & safety (Construction) Regulations and the outputs from the HV Forum Working Groups 4 and 5.

The Roads Sector will appropriately resource dedicated teams funded by the Electricity Sector mechanisms in accordance with HV Forum Working Group 4 protocols to ensure efficient delivery of the works in compliance with all design stage agreements and conditions from statutory processes.

The Electricity Sector will progress the following:

1. Dedicated points of contact with appropriate authority for immediate action on urgent issues
2. Proactive Construction stage communications plan
3. Detailed design development for all roads interfaces in compliance with current road design standards and in compliance with HV Forum Working Group 5 protocols, leading to full construction methodology. A dynamic and collaborative process required to cater for unforeseen conditions necessitating localised redesign.
4. Detailed traffic management plan, complete with temporary road works speed limits, road closures and diversion routes as necessary.
5. Preconstruction condition surveys (and structural assessments, as required) for all roads and bridges impacted by Electricity Sector scheme to include proposed diversion routes.
6. Road opening licences and other approvals to include abnormal (and Exceptional Abnormal) load permitting and Section 53 approvals for Motorway crossings as necessary.

7. Provision of certification and associated test results for all elements incorporated into the road environment, as per the Road Opening Licence.
8. Appropriately detailed as build records with full details of maintenance requirements attaching to the high voltage transmission underground cable circuits interfacing with the public roadway to the Roads Authority.

Formal approval process will be agreed for project quality assurance through the full construction process to include all items detailed in 3-8 above.

5. Operations Stage Collaboration

During the operational phase, ESBN will be responsible for maintenance, inspection and repairs arrangements of the high-voltage underground infrastructure post construction. EirGrid are responsible for the operation of the transmission system. If road access is required for maintenance during the operational phase, ESBN will consult with the relevant road authority and will use the existing Road Opening Licence process to ensure safety working, provide notice and agree traffic management and reinstatement requirements.

Should the Roads Authorities seek to work on a road with an underground cable, the existing tri-partite 'TII ESB EirGrid Protocol (October 2020)' will be followed and ESB's "Dial-Before-You-Dig" system will be a key reference. For new high voltage transmission underground cable circuits developed in accordance with this Protocol, the principles of collaboration will continue to apply. To facilitate this collaboration, the following arrangements will be put in place prior to energising of the line.

The Electricity Sector will at a minimum provide the following:

1. Dedicated points of contact for Roads Sector engagement on all transmission system projects delivered under this protocol.
2. Protocol clearly outlining what can and cannot be done in proximity to HV underground cables in public spaces.
3. Roads Sector Charter that covering the Electricity Sector's participation in Roads Sector management of both routine and emergency road maintenance interface issues post high voltage plant installation. This should cover appropriate response time for routine maintenance or Local Authority project consultation requests, emergency response times, deenergising protocols and any oversight requirements.
4. Costs arising from this process dealt with in accordance with HV Forum Working Group 4 protocols.

Appendix 1 - Communications and Collaboration Guidance

Communications and Collaboration Guidance

NB The content of this appendix is indicative only. All Interactions must be agreed from the outset and made project specific at Interaction 1. The Project Interactions must be made suitable to each project, based on its complexity, study area, and the agreement of all parties. Project Interactions can also change during the span of the project with the agreement of all parties.

Approach to Strategic and Project Interactions

Agenda

A proposed agenda will be drafted by the EirGrid Project Manager and circulated to the attendees for comment. This will be issued a minimum of five working days ahead of the meeting.

Chair

The meetings will be chaired by the EirGrid Project Manager; however, the meetings will be inclusive of all attendees and are intended to be collaborative.

PowerPoint Presentations

If required, any presentations will be short, to the point, and informative. A copy of the presentation will be made available to all attendees after the meeting within five working days.

Minutes

The EirGrid Project Manager will be responsible for preparing minutes for each meeting. The minutes will focus on actions and key issues raised. They will be drafted a maximum of five working days after the meeting and circulated for comment by all attendees before being finalised.

Data Management

All files (presentations, minutes, drawings, etc) will be made available to all attendees via a file transfer site, hosted by EirGrid (e.g. SharePoint). EirGrid will be responsible for arranging access for all attendees and ensuring the data is properly maintained.

If position papers or technical issues are to be discussed at the meeting, copies of the data should be made available a minimum of five working days ahead of the meeting. This is to allow all attendees to be familiar with the matters ahead of the meeting.

All parties will ensure that the confidentially of any data and information is maintained and will not be passed to any other parties without consent.

Inclusiveness

All meeting attendees will be respectful of each other and open to suggestions from all attendees. The meetings will be inclusive of all attendees and the Chair of meetings and Interactions will be responsible for ensuring that all attendees are heard, and their inputs are fully considered. Should any special needs be identified, the Chair will facilitate these as required.

Timescales

At the Project Interactions, requests will likely be made for clarification of certain points or for existing data. All attendees will do their best to respond to queries in a responsible time period. It is difficult for this document to state timescales as the time required for a task will vary depending on its complexity and number of people involved to resolve it. A maximum of five working days is recommended for completion of clarifications, queries or data transfers. The timescale for specific actions arising from the Project Interactions should be agreed during the Project Interaction. If additional time is needed, the attendees should be contacted with an explanation for the delay and a revised date.

Escalation

All attendees of the Strategic and Project Interactions are required to work in the spirit of cooperation in order to deliver and maintain vital public infrastructure. In the unlikely event that matters cannot be resolved at a project level, senior personnel from all parties can be contacted for advice and resolution.

Strategic Interactions

The purpose of the Strategic Interactions is discussed in the main body of this document. This will require an appropriate 'Standing Committee' of senior members of both sectors. The Strategic Interactions will be held on a quarterly basis. The meetings will ideally be face-to-face but virtual attendance will be facilitated. The meetings will be co-ordinated by EirGrid with input from all attendees.

Project Interactions

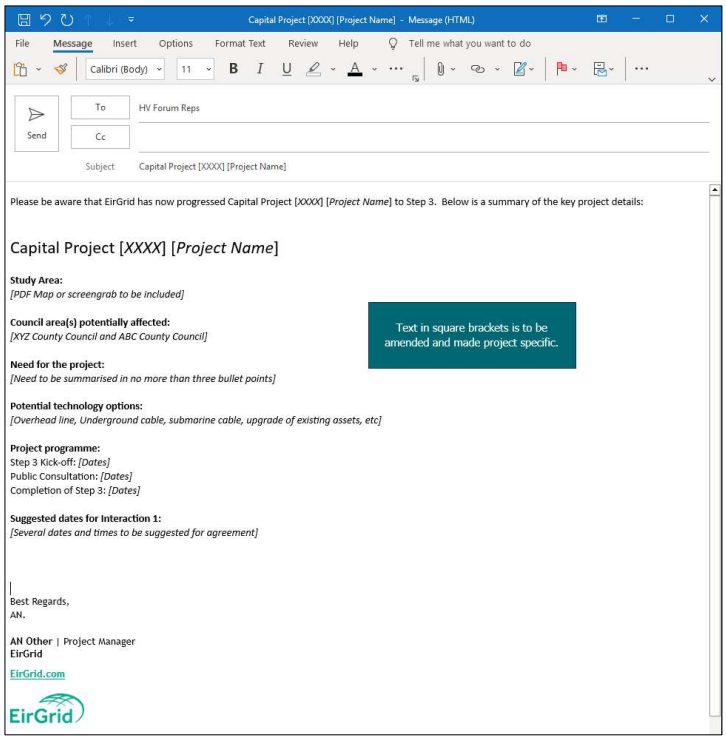
The purpose of the Project Interactions is discussed in the main body of this document.

Setup

When a Transmission Network Project, which has the potential to interact with the road network, enters Step 3, the EirGrid Project Manager will email all relevant parties to describe:

- Study area.
- Council area(s) potentially affected.
- Need for the project.
- Potential technology options.
- Project programme.
- Suggested dates for Interaction 1.

The email should be succinctly drafted without excessive attachments to allow the key information to be easily processed. An example email is set out below. Further project details would be made available on request or at Interaction 1.



As outlined in the main body of the report, Project Interactions are engagement opportunities and this can mean emails, a meeting, or a series of meetings. The approach to the Interactions will be agreed at Interaction 1. The approach will depend on the wishes of the attendees, the nature, complexity, and location of the Transmission Network Project, and the degree of interaction between the Network Project and the road network. It is recommended that all Interactions be meetings (face-to-face and/or virtual) with two hours allowed for each meeting (to be agreed by attendees).

As the Network Project moves through the project steps, the level of technical data will be become more detailed. Where reports, designs, or other data is to be issued for comment, these will be issued a minimum of10 working days in advance of any meeting. Depending on the complexity, additional time may be agreed.