



# Terms of Reference for the Distribution System Security and Planning Standards Review Project

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## 1. Purpose

The purpose of this Terms of Reference is to outline the requirements for the review of the ESBN Distribution System Security and Planning Standards (hereafter referred to as the 'Planning Standards').

## 2. Background

There are various changes on the horizon that will impact upon the electricity industry most notably decarbonisation (including the increasing prevalence of Distributed Energy Resources (DER) and the electrification of heat and transport), advancements in technology and changing customer requirements. These will have a direct impact on customer consumption and use of the network.

ESB Group have recently revised their overall Strategy Statement with five Strategic Objectives that underlie the strategic intent of the Group.

The first objective refers to the need to put customers' current and future needs at the heart of all our activities and the second refers to the need to produce, connect and deliver clean, secure and affordable energy. Key to those objectives is the need to develop a safe, smart, reliable network that enables the transition to low carbon and encourage the transition of heat and transport from fossil fuel to low carbon alternatives by facilitating and leading electrification.

ESB Networks (ESBN) have experienced a significant rise in applications for connection of domestic and non-domestic DER to the distribution system which were not anticipated when the current Planning Standards were designed. Further applications are expected in the short and longer term. ESBN estimates that by 2030, our network will support:

- 5,800MW of wind based generation
- 2,400MW of solar PV based generation
- Up to 30,000 grid edge devices
- 1,300MW of energy storage
- 2,500MW of customer flexibility
- 330,000 homes that are equipped with e-heat capability
- 2.3 million smart meters in homes and businesses

Our key challenge is to support the efficient transition of these technologies onto the electricity network and examine their impact on our future electricity network while maintaining resilience and security of the network. We need to establish how our Planning Standards need to evolve to support their connection, in the most economic method possible.

Given the above, it is timely that a review of the existing Planning Standards is carried out to ensure that they can adapt to this changing environment, while maintaining a safe, secure and reliable network.

Revised Planning Standards will be presented to the Commission for Regulation of Utilities (CRU) for consideration and approval.

## 3. Aim

The aims of the Planning Standards Review project are to:

- Review and understand how our planning standards need to evolve to meet the changes in the electricity industry.
- Review and understand how our security of supply standards need to evolve to meet the changes in the electricity industry.
- Review and understand the requirements of National and EU regulations, e.g. Energy Package, Network Codes, and ensure that the requirements are met by the revision of the Planning Standards.

- Facilitate and enable the connection of further DER to the distribution network in an economic and efficient manner, in order to assist in the continued decarbonisation of the overall energy sector and the meeting of national and EU targets in this respect.
- Achieve a revised copy of the Planning Standards that balances the needs of key Stakeholders including ESBN, CRU and customers.
- Achieve a revised copy of the Planning Standards that is approved by the CRU.
- Ensure roll-out of the revised Planning Standards across ESBN for use as ‘business as usual’ in Quarter 1 of 2020.

## 4. Scope

The scope of the Planning Standards Review is to:

- Engage consultancy support to assist with the review project and to ensure the provision of an industry independent perspective.
- Undertake a review of and understand how our Planning Standards need to evolve to meet the changes in the electricity industry.
- Undertake a review of and understand how our Security of Supply Standards need to evolve to meet the changes in the electricity industry.
- Undertake a review of and understand the requirements of National and EU regulations, e.g. Energy Package, Network Codes, and ensure that the requirements are met by the revision of the Planning Standards.
- Carry out a peer review comparison of other Distribution Network Operators (DNOs) / Distribution System Operators (DSOs) in other relevant jurisdictions considering their Planning and Security of Supply Standards and other best practice methods on how to:
  - facilitate and enable the connection of further DER to the distribution network by exploring
    - the facilitation of non-firm / variable connections to the distribution network
    - the facilitation of access to active network management systems
  - facilitate and enable the electrification of heat and transport
  - facilitate the use of non-wire solutions as an alternative to reinforcement
  - facilitate the use of probabilistic based planning methods
  - measure movement in network performance and capability as load levels change in order to prioritise network investment projects, and justify the projects which represent the best value for money, in a consistent and efficient manner
- Collaborate with colleagues on innovation projects and pilots to ensure the learning from those are captured in our future Planning and Security of Supply standards.
- Explain the rationale behind the changes and recommendations in the Standards especially where the recommended practice differs from international practice, e.g. customisation required to cater for specific characteristics of the Irish network.
- Identify the dependencies between implementation of the new recommended Standards and the deployment of active management systems and technologies on the network.
- Engage with our Stakeholders (having defined who key Stakeholders are) throughout the project in a structured manner to ensure their needs / requirements are considered and explored.
- Engage with the Document Controller Team to ensure the document goes through the internal approval processes before opening a public consultation for Stakeholder feedback.
- Engage with Stakeholders and open a public consultation to gain feedback from Stakeholders on the revised Planning Standards before seeking approval for the new Standards from the CRU.
- Engage and communicate with the CRU on their requirements to ensure the document goes through the CRU approval processes and is ratified by the CRU before rolling out the revised Planning Standards for use as ‘business as usual’.
- Ensure revised Planning Standards are rolled out across ESBN for use as ‘business as usual’ from Quarter 1 of 2020. There may be a staged implementation of the revised Planning Standards because some aspects of the Standards may be dependent on active management systems and technology being available on the network.
- Ensure a timeline plan is developed for the staged implementation of the revised Standards.

## 5. Stakeholder Engagement

ESBN recognise the importance of Stakeholder Engagement for the Planning Standards Review Project. ESBN will develop a Stakeholder Engagement Strategy for the project and identify Stakeholders. All Stakeholders are invited to attend and actively participate in Stakeholder Engagement workshops or meetings. Other Stakeholders who have not specifically been identified by ESBN are welcome to participate in Stakeholder Engagement.

Gathering Stakeholder views and opinions and considering their needs and requests will be a fundamental part of the research and assessment phase of the project. Stakeholder Engagement workshops or meetings will be held regularly throughout the project to ensure continuous Stakeholder Engagement and communication and to keep Stakeholders up-to-date with our proposals.

The ESBN Planning Standards Review Team will operate an ‘open-door’ policy and encourage Stakeholders to approach the Review Team throughout the project if they wish to highlight any issues or put forward topics for exploration for the Planning Standards Review. The intention of how the open-door policy will work is detailed below:

- The Review Team will invite Stakeholders to submit feedback / ideas in the form of a written submission to the Review Team
- The Review Team will allocate dedicated timeslots where Stakeholders will have the opportunity to make an appointment to discuss their feedback / ideas with the Review Team. These meetings may be one-to-one meetings or they may be in groups, depending on Stakeholder uptake.

The Terms of Reference and Scope will be finalised and published by the end of Q4 2018 but other ideas could be considered if approved through the internal governance process and deemed urgent, otherwise they will be recorded and added to an appendix for the next review.

## 6. Project Updates

Project updates will be provided at the quarterly Distribution Code Review Panel (DCRP) meetings. Minutes from the DCRP meetings are published and can be found on the ESBN website<sup>1</sup>. Further details will be included in the project updates regarding the open-door policy and contact details will be provided for the Review Team.

Other sources to provide periodic updates may be considered throughout the project as they arise, e.g. conferences or other meetings and events.

Stakeholder Engagement Meetings will be held throughout the project with regular meetings arranged throughout the project lifecycle and these meetings can be used as a medium for providing project updates in addition to the quarterly DCRP meetings.

## 7. Governance

The DSSPS Review Project forms part of ESBN’s Innovation Strategy<sup>2</sup> and is included under the ‘Connecting Renewables’ Innovation Roadmap<sup>3</sup>. There is an internal governance process to monitor all of the projects in the Innovation Strategy, consisting of an Innovation Governance Board (IGB) and a Roadmap Sponsor. The IGB owns the Innovation Strategy and it is their role to ensure that the strategy continues to reflect CRU and ESBN priorities, and those of the evolving energy industry.

- Project Owner: Ivan Codd, Smart Distribution Planning Standards & Projects Manager
- Roadmap Sponsor: Clare Duffy, Network Development & Electrification Manager

The Terms of Reference will initially be reviewed and approved by the Roadmap Sponsor and published by the end of Quarter 4 2018 and then on an as needed basis or on the basis of significant changes being made to strategic objectives

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<sup>1</sup> <https://esbnetworks.ie/tns/publications/-in-category/categories/publications/distribution-code/dcrp-meeting-minutes>

<sup>2</sup> <https://www.esbnetworks.ie/who-we-are/innovation/our-innovation-strategy>

<sup>3</sup> <https://www.esbnetworks.ie/who-we-are/innovation/our-innovation-strategy/connecting-renewables>

of the project. Other ideas based on Stakeholder feedback could be considered if approved through the internal governance process and deemed urgent, otherwise they will be recorded and added to an appendix for the next review.

The Planning Standards Review Project will be reviewed regularly throughout the project to ensure that the project is on target for the revised Planning Standards to be published in Quarter 1 of 2020.

The revised Planning Standards will be reviewed and approved by the CRU.

## 8. Deliverables

Achieve a revised copy of the Planning Standards in Quarter 1 of 2020 that balances the needs of key Stakeholders including ESNB, CRU and customers and ensure an implementation plan is included with a timeline for the phased implementation of the Standards.