



Strategic Framework for Planning & Environment

August 2022



Powering **Up** Dublin

Foreword

EirGrid, as electricity Transmission System Operator for Ireland, is pleased to publish the *Powering Up Dublin - Strategic Framework for Planning & Environment*.

This strategic framework sets out the manner in which the transmission system in Dublin is anticipated to be developed over the coming years. It focuses on EirGrid's approach to project development and technology, the environment, consultation and engagement, people, communities and society.

EirGrid remains fully committed to ensuring that transmission infrastructure development is carried out in an environmentally sensitive manner, promoting the principles of sustainable development while considering the needs of local communities and stakeholders.

This document will form a focus for EirGrid's planned engagement with Planning Authorities, Prescribed and Non-Prescribed bodies, and other Statutory and non-Statutory authorities and agencies.

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PART A: Introduction and Context

1. Introduction

1.1 About EirGrid

EirGrid is the state-owned independent electricity Transmission System Operator (TSO). It is responsible for developing, managing and operating Ireland’s national high voltage electricity grid (also called the “Transmission System”), ensuring a safe, secure and reliable supply of electricity now and in the future.

EirGrid plans, designs and operates the transmission system to carry power from where it is generated to where it is needed throughout Ireland. This includes supplying power directly to industry and businesses that use large amounts of electricity. The grid also powers the lower voltage distribution network operated by the Electricity Supply Board (ESB). This supplies the electricity used every day in homes, businesses, schools, hospitals, and farms.

The European Communities (Internal Market in Electricity) Regulations 2000 (SI 445 of 2000) sets out the role and responsibilities of the TSO; Article 8(1) (a) gives EirGrid, as TSO, the exclusive function:

“To operate and ensure the maintenance of and, if necessary, develop a safe, secure, reliable, economical, and efficient electricity transmission system, and to explore and develop opportunities for interconnection of its system with other systems, in all cases with a view to ensuring that all reasonable demands for electricity are met having due regard for the environment.”

It is in this Statutory context that EirGrid is undertaking the planning and development of the Powering Up Dublin Programme.

1.2 The Structure of this Implementation Plan

The Powering Up Dublin Programme comprises six electricity cable projects and six electricity substation (or “station”) projects – see Table 1 below. These projects will contribute to an improved and upgraded network in Dublin for all electricity users, responding to increasing demand for electricity and facilitating a transition to a low carbon society based on renewable energy sources.

This Implementation Plan provides a high-level overview of the projects forming the Powering Up Dublin Programme. It explains why they are needed, and shows how they relate to each other, as well as to other transmission and other major infrastructure projects in the Dublin region.

The Implementation Plan thereby provides a consistent basis and context for the development of each project in accordance with its own particular circumstances, timelines and legislative process.

The structure of the Implementation Plan is as follows:

- Part A sets out the general Introduction and Context for the Powering Up Dublin Programme, identifying the spatial area and various projects covered by the Implementation Plan, and addressing the strategic objectives, planning policy and development framework underpinning the required network improvements.
- Part B provides information on project delivery, including a summary of the projects, and anticipated timelines for their implementation. It also identifies other transmission infrastructure and general infrastructure projects in the Dublin region which have the potential to interact with the identified projects of the Powering Up Dublin Programme.
- Part B also sets out EirGrid’s approach to various aspects of project delivery, such as stakeholder engagement and consultation, planning and consenting, and environmental matters. While the timely delivery of the Powering Up Dublin Programme is of critical importance, this will be undertaken in a programmatic manner, consistent with the principles of proper planning and sustainable development.

- Part C sets out next steps in the planning and development of the projects in the Powering Up Dublin Programme. This examines project-specific initiatives to ensure the timely and sustainable delivery of the various projects within the Programme.

Table 1: Projects making up the Powering Up Dublin Programme

	Project Name	Description	Administrative Council
Cable Projects (node to node)	North Wall – Poolbeg	Offline replacement of existing 220kV cable	Dublin City Council
	Finglas - North Wall	Offline replacement of existing 220kV cable	Dublin City Council
	Carrickmines – Poolbeg	Offline replacement of existing 220kV cable	Dublin City Council and Dun Laoghaire-Rathdown County Council
	Inchicore - Poolbeg #1	Offline replacement of existing 220kV cable	Dublin City Council
	Inchicore - Poolbeg #2	Offline replacement of existing 220kV cable	Dublin City Council
	South Dublin Reinforcement *	New cable route and potential new substation in SW Dublin	Dublin City Council, South Dublin County Council and Dun Laoghaire-Rathdown County Council (TBC)
Station Projects	Poolbeg 220 kV substation Development	Additional GIS substation and other infrastructure within existing substation	Dublin City Council
	Belcamp 220 kV substation Development	GIS substation and other infrastructure within and adjacent to existing substation	Fingal County Council
	North County Dublin New Bulk Supply Point*	New substation	Location TBC
	West County Dublin New Bulk Supply Point*	New substation	Location TBC
	East Wall Road New Substation*	New substation	Dublin City Council
	North Wall Station Refurbishment**	Upgrade of existing substation	Dublin City Council

*not all project locations confirmed

** An alternative replacement substation will be required if upgrading of the existing substation is not feasible

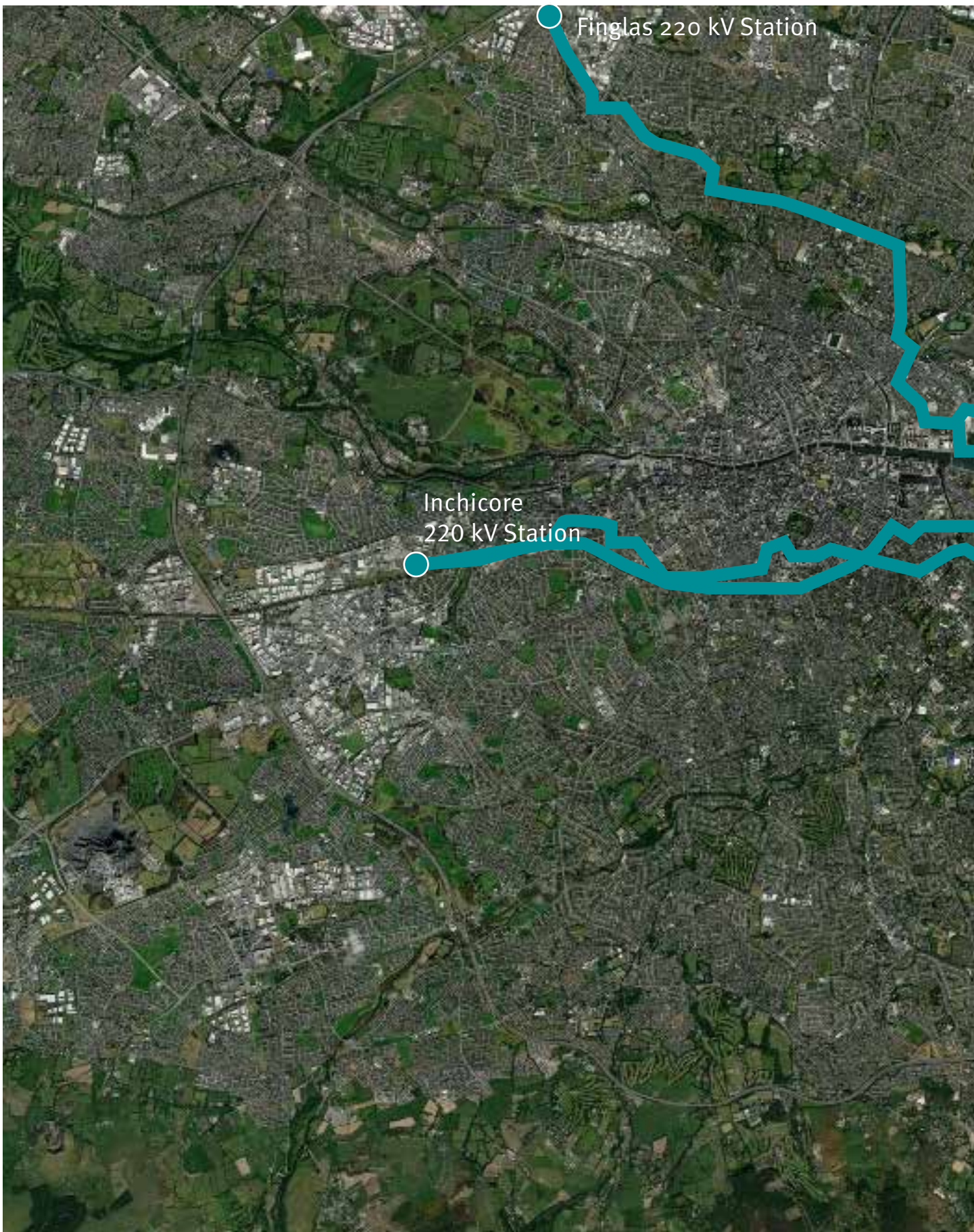
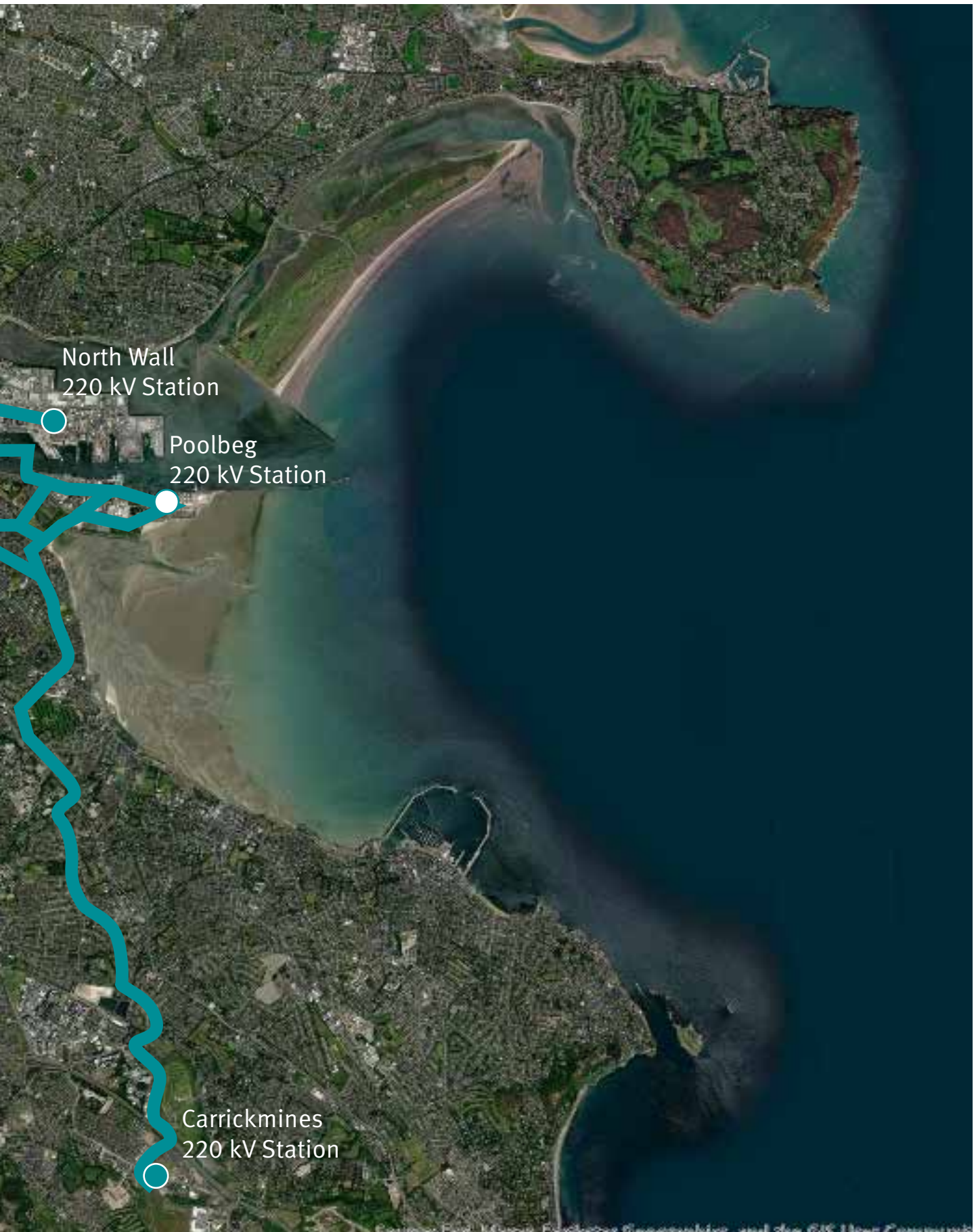


Figure 1: Projects of the Powering Up Dublin Programme (source: EirGrid) – note that the cable routes shown on this figure are the existing cable routes which will be replaced



1.3 The Strategic Need for the Powering Up Dublin Programme

The transition to a low carbon society and the commitment by Ireland’s government to achieve net-zero emissions by 2050 will mean that more energy needs to be generated from renewable sources such as wind and solar power. In addition, it is anticipated that demand for electricity will increase, as the number of electric vehicles increases, heat sources are electrified, and as fossil fuels such as coal and oil are phased out.

To prepare for and facilitate this change, EirGrid must make the electricity grid more resilient and more flexible. The grid will need to carry more power, and most of this power will come from renewable generation – including both onshore and offshore sources. To make this possible, EirGrid will need to upgrade and add to existing grid infrastructure – primarily comprising underground cables, overhead lines, pylons and substations.

The Dublin Region is the major load centre on the Irish electricity transmission network, accounting for approximately one third of total demand. The existing transmission network in the Dublin Region is comprised of 220 kilovolt (kV) and 110 kV infrastructure. These are primarily fed from the existing 400 kV substations at the western edge of the Dublin area: Woodland in Co. Meath, and Dunstown in Co. Kildare, as well as a number of existing 220 kV substations, including Carrickmines, Inchicore, Finglas and Belcamp substations – these are known as Bulk Supply Points (BSPs) (see Figure 2).

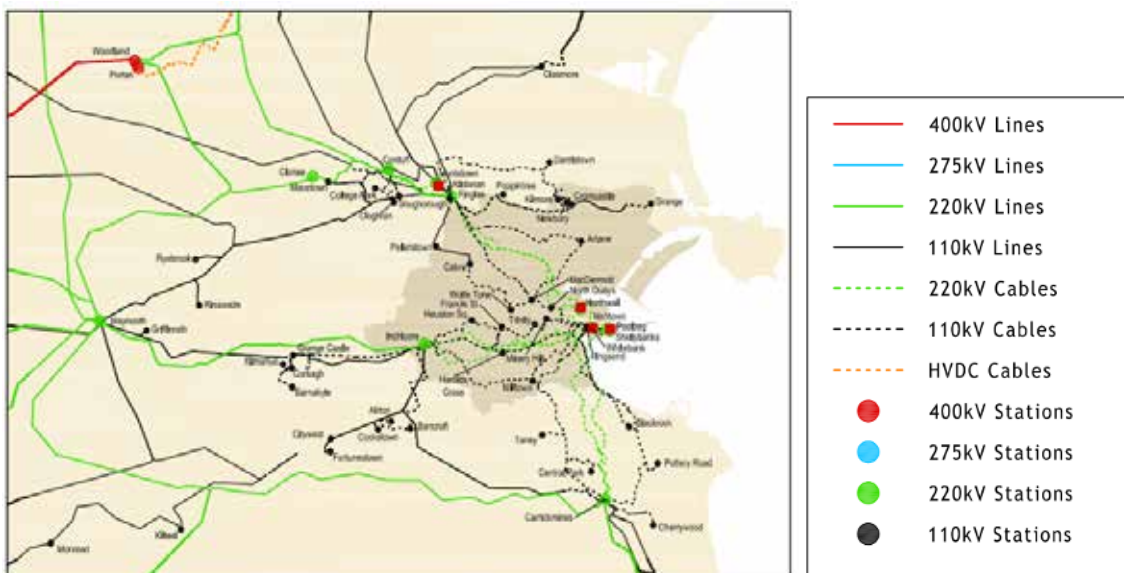


Figure 2: Existing transmission infrastructure in the Dublin Region (source: EirGrid)

To meet the Dublin Region’s demand growth it is also necessary to install additional transformer capacity and increase circuit capacity to the north, south and west of the city, and into the city itself.

In summary, there are three key drivers for the Powering Up Dublin Programme:

- Demand growth, including additional demand from major users;
- Connection of offshore generation on the east coast, to enable transmission and use of clean renewable energy;
- Replacement of existing electricity transmission infrastructure, particularly fluid filled cables, which may be reaching end-of-life and/or have potential for future environmental impact. As part of this, seeking to replace existing infrastructure with modern high-capacity infrastructure.

In addition to the projects of the Powering Up Dublin Programme, there are a number of projects in the Greater Dublin Area that, whilst not part of the Programme, are essential projects in terms of EirGrid’s planned network improvements across the country. Examples of other essential projects are provided in Section 3.1 of this Implementation Plan.

These projects will in totality strengthen the National network for all electricity users, and in doing so will improve the security and quality of supply. This is particularly important if the region and country is to continue to develop as an Information and Communications Technology (ICT) hub and attract high technology industries that depend on a reliable, high quality, electricity supply.

1.4 EirGrid's Approach to Grid Development

Electricity infrastructure is long-term, large-scale investment in the future. Each piece of equipment can last for several decades. As the grid is a network, EirGrid has to consider the entire grid when making changes at a local level.

EirGrid develops the grid to:

- replace or upgrade old infrastructure;
- respond to changes to the demand for electricity;
- connect with electricity grids in other countries;
- accommodate new ways to generate electricity; and/or
- deal with different locations where it can be generated.

EirGrid is legally obliged to connect those who generate electricity. This means it must develop the grid in response to plans for new electricity generation, such as from renewable sources.

When EirGrid develops the grid, it has due regard for the environment and follows three principles:

1. Ensure that consultation with local communities is central to project development;
2. Consider all practical technology options for developing the network; and
3. Minimise the need for new infrastructure.

Through adherence to these principles, EirGrid has due regard for the sustainable planning, development and delivery of grid infrastructure sustainability. EirGrid has developed an end-to-end process for all of EirGrid's grid infrastructure development projects, from conception through to the identification of a need to develop the electricity transmission grid and their eventual construction and subsequent energisation. This is known as EirGrid's Framework for Grid Development, and is outlined in EirGrid's 'Have Your Say' document, available at www.eirgridgroup.com.

The six steps of the end-to-end process are listed in in Figure 3 and outlined in the following text .

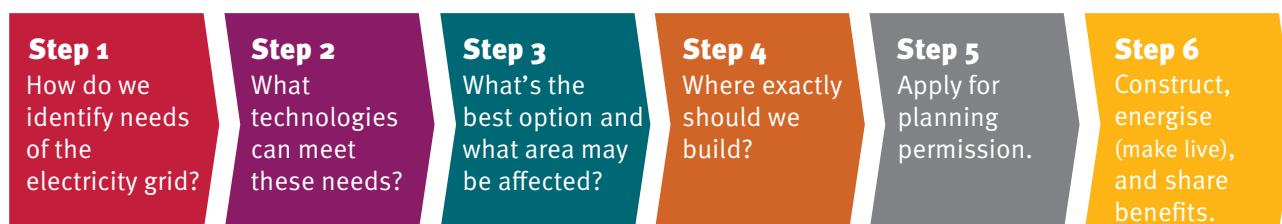


Figure 3: EirGrid's Framework for Grid Development (source: EirGrid)

Step 1: How do we identify the future needs of the electricity grid?

At Step 1, EirGrid confirms the need for the project and explains this to representatives and interest groups. EirGrid identifies the future needs of the electricity grid by considering the potential changes in demand for electricity. These changes are influenced by factors such as:

- How and where electricity is and will be generated, and
- Changes in electricity use due to new consumer technologies.

Step 2: What technologies can meet these needs?

Step 2 looks at the range of technical options that can meet the needs confirmed in Step 1. At this step a long list of options is developed based around the following questions:

- Which technologies are available for use?
- Which option would be preferable - overhead lines or underground cables?
- What related upgrades will the existing network need as a result of new infrastructure?
- Which substations may need an upgrade?
- What does this mean for the lines connecting these substations?

A shortlisting exercise is then undertaken after considering a number of technical solutions. This stage also looks at the balance of technical, cost and environmental suitability when considering whether options are existing infrastructure upgrades or new lines. In cases where a major new overhead line is shortlisted, an underground cable option is presented. The short list of technical solutions is taken forward to Step 3.

Step 3: What's the best option and what area may be affected?

Step 3 looks at further refinement of the options, considering the potential benefits and impacts to identify and potential issues which could restrict the options. Consultation will be undertaken during this step in which organisations such as environment and planning agencies, and specialist representative groups may be approached. Engagement may also be undertaken at a local level with members of the public, local representatives and landowners.

Step 4: Where exactly should we build?

Following consultation and engagement undertaken in steps 1-3, Step 4 looks at assessing the most appropriate place to build the project. This step involves engagement with landowners and the wider community to understand which locations for new infrastructure are preferred by local people, as well as local factors that could affect siting to decide on a preferred route or site.

Step 5: The planning process

Where a project requires planning permission, an application will be submitted to the appropriate planning authority - either An Bord Pleanála or the local planning authority. When the planning process ends, a legally binding decision will be made on the project, whether to grant full planning permission, grant permission on the basis that some changes are made or refuse permission.

Step 6: Construction, energisation and benefit sharing

During Step 6 the project is built and 'goes live' after a period of testing. A plan is created to give landowners and communities details of the construction phase, including issues such as traffic management and access requirements.

Projects are generally subject to a Community Benefit Scheme, which is implemented during this Step. For larger projects and programmes, an independently chaired Community Forum is established to facilitate ongoing dialogue and discussion of matters arising with regard to a project.

2. Strategic Policy Context for the Powering Up Dublin Programme

This strategic planning appraisal sets out the strategic planning policy context for the Powering Up Dublin Programme. It identifies key European, national, regional and local planning policies and objectives. It also includes those policies from a relevant sectoral perspective that are relevant to the Programme, and demonstrates how these policies will be consistent with, and contribute to, the achievement of same.

2.1 Shaping Our Electricity Future - A roadmap to achieve our renewable ambition

In November 2021, EirGrid published Shaping our Electricity Future following consultation with stakeholders across society, government, industry, market participants and electricity consumers.

Shaping our Electricity Future provides an outline (see Figure 4) of the key developments from a networks, engagement, operations and market perspective needed to support a secure transition of up to 80% renewables on the electricity grid by 2030 – an important step on the journey to 80% and to net zero by 2050. Inherent in this is a secure transition to 2030 whereby EirGrid continues to operate, develop and maintain a safe, secure, reliable, economical and efficient electricity transmission system with a view to ensuring that all reasonable demands for electricity are met.

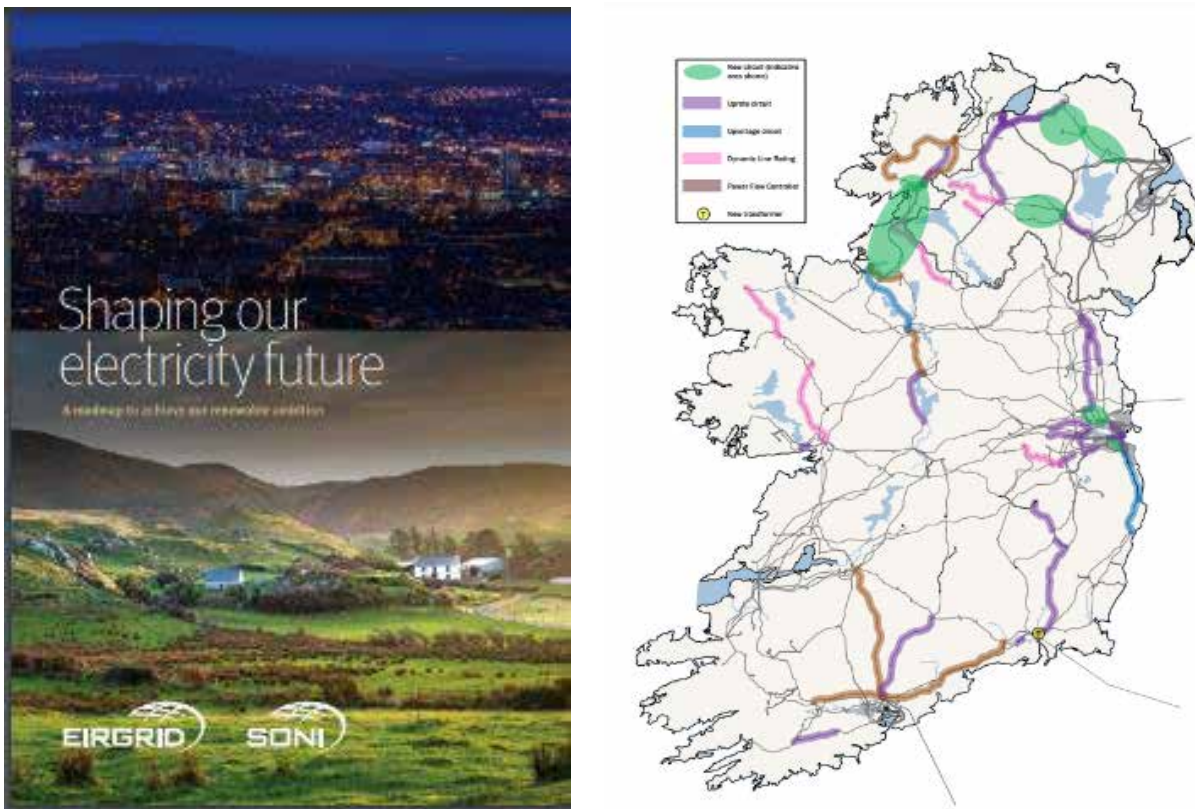


Figure 4: Map of Ireland and Northern Ireland detailing reinforcements – comprising Map 5 of Shaping Our Electricity Future (source: EirGrid)

The requirement to achieve net-zero carbon emissions by 2050 is set into law by the Climate Action and Low Carbon Development (Amendment) Act 2021. The Act is a way of setting targets for carbon emissions, and puts Irish law in line with European Union (EU) targets.

Shaping our Electricity Future confirms that the existing transmission grid will need huge change through to 2030. EirGrid estimates that Ireland and Northern Ireland together will need at least another 10 gigawatts (GW) of electricity from clean sources. This is roughly twice as much clean electricity compared with what was available in 2020. The additional clean energy will replace some of the electricity generated through traditional methods (like coal and gas) and will serve some of the increased demand for electricity. This power will have to be generated, connected to the grid and delivered throughout Ireland .

The transition to clean electricity will be challenging but will help deliver investment and jobs. It will also make the island of Ireland more energy independent and will significantly reduce air pollution caused by electricity generation from fossil fuels.

2.2 Relevant National, Regional, and Local Planning Policy

Renewable energy is a national priority and government policy and is emphasised as such in the government's White Paper on Energy. However, renewable energy is dependent on the ability of the transmission and distribution networks to allow its safe and stable use.

Renewable energy, whilst a principal driver of energy infrastructure development, must therefore be viewed side by side with grid and network system services which facilitate and support them. It is considered that the *Powering Up Dublin* Programme is in accordance with, and indeed will assist in the delivery of, key strategic energy objectives and land use development policies, set out in European, national, regional, and local statements, policies and plans. These include:

- The Climate Action Plan 2021 – Securing Our Future
- Project Ireland 2040 – National Planning Framework
- Regional Spatial and Economic Strategy for the Eastern and Midland Region – 2019-2031
- Dublin City Development Plan 2016 – 2022
- Dublin City Draft Development Plan 2022-2028
- South Dublin County Development Plan 2016-2022
- South Dublin Draft County Development Plan 2022-2028
- Dún Laoghaire-Rathdown County Development Plan 2022-2028
- Fingal County Development Plan 2017- 2023
- Fingal Draft County Development Plan 2023-2029

The Programme is considered to be consistent with strategic policies of proper planning and sustainable development. Additional policy content in respect of these Plans and Strategies is set out in Appendix A.

3. The Plan Area

3.1 The Area of the Powering Up Dublin Programme

As discussed in more detail in Part B of this Implementation Plan, the Powering Up Dublin Programme is focussed upon the provision of both new and upgraded / replacement transmission infrastructure within the Dublin area. It also includes the provision of a new circuit and nodes within the Dublin area. These are set out spatially in Figure 5 below (see also Figure 1 of this Plan).

The area of the Powering Up Dublin Programme is primarily bounded by the M50 corridor to the north, west and south, and by the coastline to the east. It includes existing transmission Bulk Supply Points (BSPs - substation nodes) outside though in proximity to the M50 corridor, at Carrickmines in South Dublin, and Finglas and Belcamp in North Dublin.

In addition, the Powering Up Dublin Programme includes the provision of new BSPs in North County Dublin and West County Dublin (as well as a potential BSP – currently unconfirmed – in South Dublin). The locations of these BSPs are currently undefined, but are likely to be proximate to or outside the M50 corridor. The Programme also includes new or replacement substation nodes at, or in the vicinity of, North Wall and East Wall Road, in the North City area of Dublin.

While the Powering Up Dublin Programme has a number of clearly defined projects, these cannot be divorced from a wider programme of grid infrastructure development being undertaken by EirGrid. This is due to the inter-connected or “meshed” nature of the Irish national grid.

In addition to the projects of the Powering Up Dublin Programme, there are other grid infrastructure projects planned or ongoing in the Dublin Region. These include:-

- Upgrading of the existing Inchicore Substation, primarily comprising a new gas insulated switchgear (GIS) substation; and
- Upgrading of the existing Carrickmines and Finglas Substations, also primarily comprising new GIS substations.

In addition, as per Figure 6 below, extracted from Map 5 of Shaping Our Electricity Future), a number of key strategic grid infrastructure projects are located in the Greater Dublin Area and will interact with the projects of the Powering Up Dublin Programme. These include:-

- **Kildare – Meath Grid Upgrade:** A new circuit between Dunstown 400 kV substation, near Kilcullen Co. Kildare, and Woodland 400 kV substation, near Batterstown Co. Meath, thereby increasing the capacity of the often congested and highly loaded Dublin transmission network ;
- **East Meath – North Dublin Grid Upgrade:** A new circuit between Woodland 400 kV substation and Belcamp substation; and
- Upgrading of the existing east coast circuit between Carrickmines and Arklow substations.

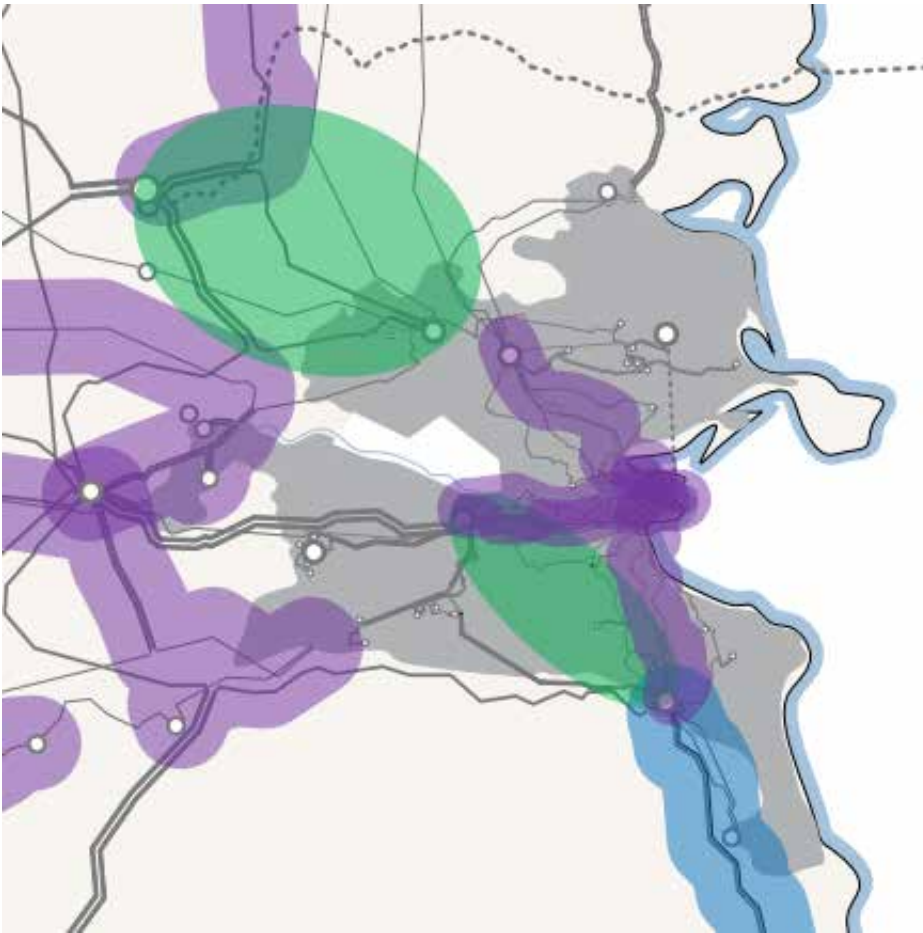


Figure 5: Grid Infrastructure Projects in the Greater Dublin Area which will interconnect with the Powering Up Dublin Programme (extracted from Map 5 of Shaping Our Electricity Future)

3.2 Existing Environment and Constraints

As explained in Section 7 (Our Approach to Environment), environmental considerations will inform the progression of all EirGrid projects forming the *Powering Up Dublin* Programme. This section provides a summary of the natural environmental constraints for the key areas of biodiversity, cultural heritage, and surface water. Section 7.3 sets out information on how a range of environmental topics, including those relating to people and communities, are typically considered.

3.2.1 Biodiversity Constraints

The Dublin and Greater Dublin Area contains areas of high environmental sensitivity, particularly along the coastline. There are several areas protected by European designation, as shown in Figure 7 and summarised below. As indicated by Figure 7, several of the following designated areas also contain areas proposed or recognised as Natural Heritage Areas.

South Dublin Bay Special Area of Conservation (SAC)

This intertidal site with extensive areas of sand and mudflats lies south of the River Liffey, extending from Dublin's South Wall to the west pier at Dun Laoghaire. The site is selected as an SAC for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive:

- Tidal Mudflats and Sandflats;
- Annual vegetation of drift lines;
- Salicornia and other annuals colonising mud and sand; and
- Embryonic shifting dunes.

These habitats support species including lugworm, cockles, annelids and other bivalves. The sand and mudflats also provide valuable habitat for birds, including internationally important species as illustrated below for the South Dublin Bay and River Tolka Estuary Special Protection Area (SPA).

South Dublin Bay and River Tolka Estuary Special Protection Area (SPA)

This site comprises a substantial part of Dublin Bay as well as the intertidal area between the River Liffey and Dun Laoghaire, and the estuary of the River Tolka to the north of the River Liffey, as well as Booterstown Marsh. A portion of the shallow marine waters of the bay is also included.

The site is selected as an SPA under the E.U. Birds Directive due to its importance for bird populations the following species: Light-bellied Brent Goose, Oystercatcher, Ringed Plover, Grey Plover, Knot, Sanderling, Dunlin, Bar-tailed Godwit and Redshank. South Dublin Bay is also a significant site for wintering gulls, with a nationally important population of Black-headed Gull, and also Common Gull, Herring Gull and Mediterranean Gull. The site is also an internationally important passage/staging site for Roseate Tern, Common Tern and Arctic Tern.

North Dublin Bay SAC

This site covers the inner part of north Dublin Bay, the seaward boundary extending from the Bull Wall lighthouse across to the Martello Tower at Howth Head. North Bull Island is the focal point of this site.

The site is selected as an SAC for various habitats and/or species listed on Annex I / II of the E.U. Habitats Directive including tidal sand and mudflats, and a range of dune systems from fixed dune grassland to pioneer communities on foredunes.

North Bull Island is a sandy spit which extends for approximately 5 km and up to 1 km in width. A well-developed and dynamic dune system stretches along the seaward side of the island, and saltmarsh extends along the length of the landward side of the island. About 1 km from the tip of the island, a large dune slack with a rich flora occurs, usually referred to as the 'Alder Marsh' because of the presence of Alder trees. The island shelters two intertidal lagoons which are divided by a solid causeway. These lagoons support a range of vegetation types, invertebrates including species of national importance, and macrofauna such as lugworms, common mussel and numerous crustacea.

North Dublin Bay is of international importance for a range of bird species, as illustrated by the information below for the North Bull Island SPA.

North Bull Island SPA

This site covers all of the inner part of north Dublin Bay, with the seaward boundary extending from the Bull Wall lighthouse across to Drumleck Point at Howth Head. Part of the interior of the island has been developed as golf courses. North Bull Island is a Ramsar Convention site, and part of the North Bull Island SPA is a Statutory Nature Reserve and a Wildfowl Sanctuary.

Saltmarsh extends along the length of the landward side of the island and provides the main roost site for wintering birds in Dublin Bay. The island shelters two intertidal lagoons which are divided by a solid causeway. These lagoons provide the main feeding grounds for the wintering waterfowl.

The site is selected as an SPA under the E.U. Birds Directive due to its importance for Light-bellied Brent Goose, Shelduck, Teal, Pintail, Shoveler, Oystercatcher, Grey Plover, Knot, Sanderling, Dunlin, Black-tailed Godwit, Curlew, Redshank, Turnstone and Black-headed Gull. Also of significance is the regular presence of several species that are listed on Annex I of the E.U. Birds Directive, notably Golden Plover and Bar-tailed Godwit, but also Ruff and Short-eared Owl. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds.

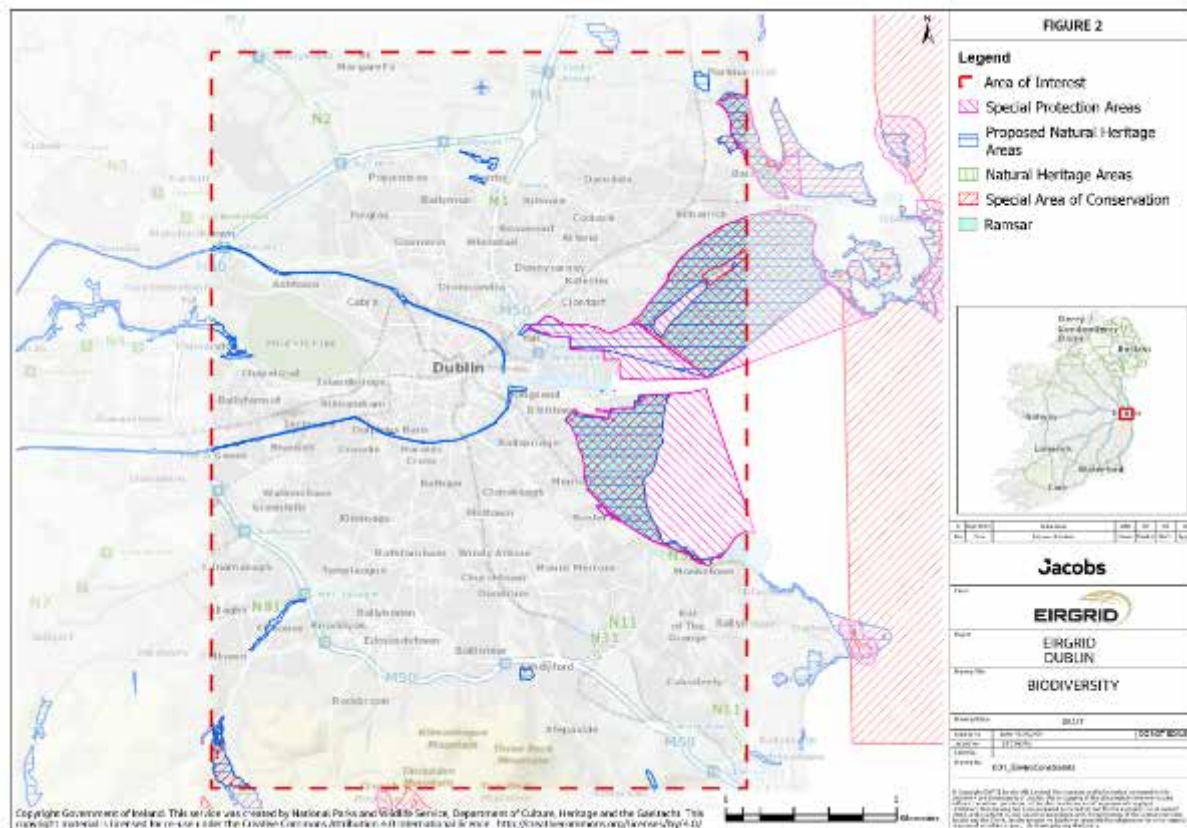


Figure 6: Biodiversity Constraints within the area of the Powering Up Dublin Programme (source: Jacobs)

3.2.2 Cultural Heritage Constraints

The historic city of Dublin is a UNESCO World Heritage Centre, with a distinctive street plan, architectural and archaeological monuments, important buildings and spaces, and unique squares and streets. The city was subject to major growth and expansion in the Georgian period (1714-1830), which introduced institutional buildings and infrastructure of high architectural quality and establishing the city street plan substantially as it survives today. Larger areas of Victorian and Edwardian architecture north and south of the canals contribute to the varied character and identity of Dublin City and its wider environs.

Visible remnants of Dublin’s industrial heritage include canals, tramlines and railways, mill buildings and mill races, breweries and historic factory sites. Many of Dublin’s streets and roads also contain historic street furniture, such as limestone and granite kerb stones, cobblestones, cast-iron post boxes, water pumps, milestones, street lighting, statues, water troughs, railings, and protective bollards. These features contribute to the present-day character and uniqueness of an area, by reflecting its historic past.

Cultural heritage assets are valued for the contribution they make to the understanding of the history of a place, an event or people. Assets may be afforded protection either as recorded archaeological monuments (on the Record of Monuments and Places (RMP) / Sites and Monuments Record (SMR)) or as protected structures (on the Record of Protected Structures (RPS) in the relevant City or County Development Plan), or as structures within the National Inventory of Architectural Heritage (NIAH). Figure 8 illustrates the significant number of heritage assets in the Dublin area.

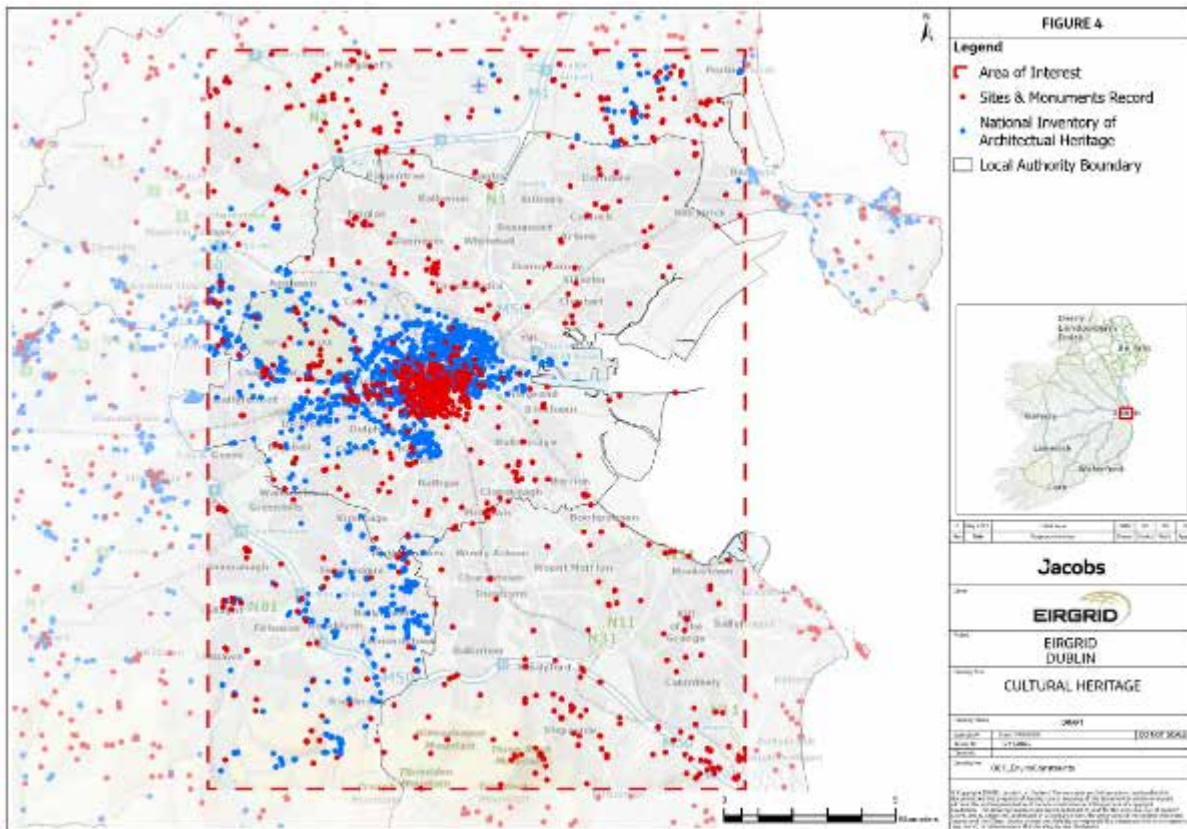


Figure 7: Cultural Heritage Constraints within the area of the Powering Up Dublin Programme (source: Jacobs)

3.2.3 Surface Water Constraints

The Water Framework Directive (WFD) provides a framework for establishing a system to improve and / or maintain the quality of water bodies across the European Union (EU). Under the WFD, river basin management planning and monitoring is required to achieve the general protection of the aquatic ecology, specific protection of unique and valuable habitats, protection of drinking water resources, and protection of bathing water. Waterbodies may be assigned a status of Bad, Poor, Moderate, Good or High, and the Directive requires all water bodies (river, lakes, groundwater, transitional, coastal) to attain ‘Good Water Status’ by 2027. An overall ‘Good Status’ refers to achieving this standard for both ecological and chemical parameters.

The WFD was transposed into Irish law by the (Water Policy) Regulations 2003 (as amended), which outline the water protection and water management measures required to maintain high status of waters where it exists, prevent any deterioration in existing water status and achieve at least ‘Good’ status for all waters. These regulations require the assessment of permanent impacts of a project on WFD waterbodies. This includes all operational impacts, and may also include construction impacts depend on the works required.

Figure 9 shows the WFD status of waterbodies in the Dublin area.

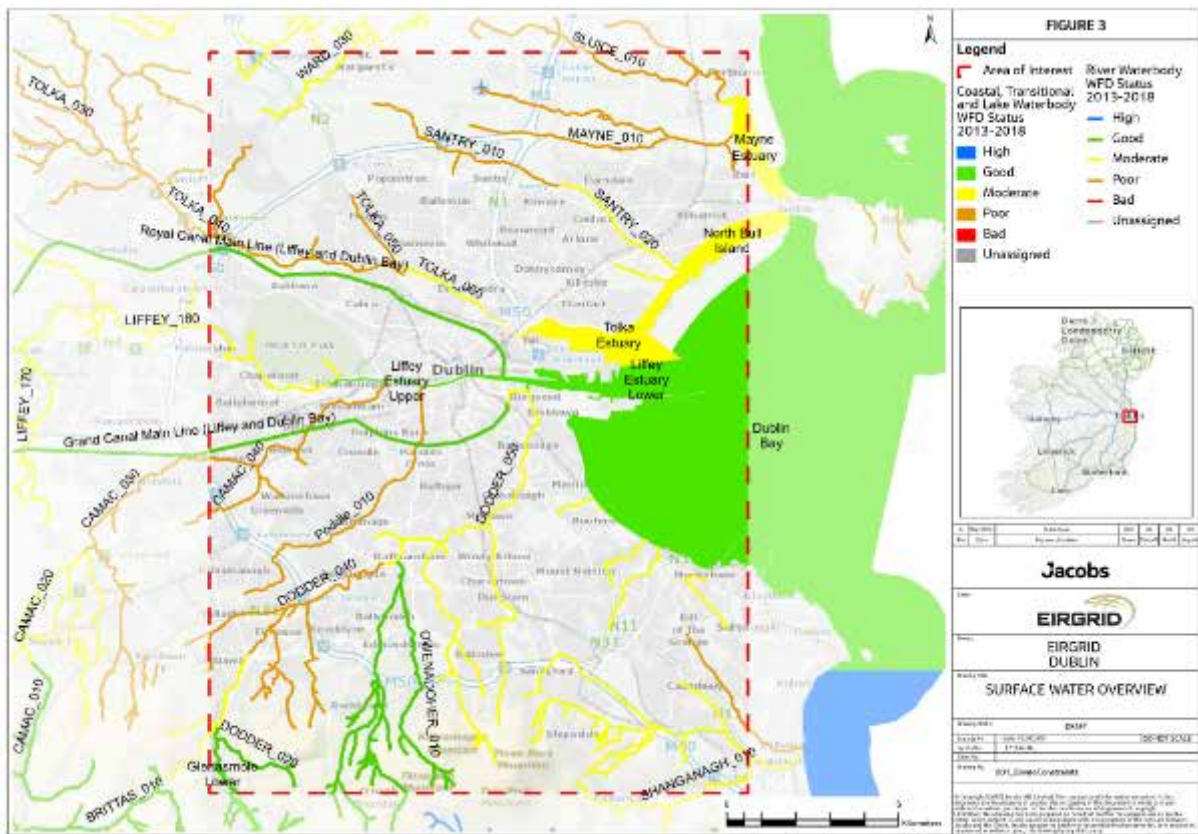


Figure 8: Surface Water Constraints within the area of the Powering Up Dublin Programme (source: Jacobs)



PART B: Delivery

4. The Planned Development

4.1 Scope of the Powering Up Dublin Programme

It is intended that the projects forming the Powering Up Dublin programme will be delivered as an integrated programme of works to transform the Greater Dublin Area electricity transmission network.

Table 1 above provides a summary of the projects under the Powering Up Dublin Programme. In addition, Figure 1 above shows the existing location of these projects. However, the nature and/or location of certain projects are not yet known – these are as follows:-

- South Dublin (Inchicore Carrickmines) Reinforcement;
- North County Dublin new Bulk Supply Point
- West County Dublin new Bulk Supply Point
- East Wall Road new Substation; and
- North Wall Station Refurbishment (this may comprise a new substation at an alternative location)

In addition, the specific routes of the planned cable replacement projects have not yet been confirmed. These require to be offline rather than in situ replacements in order to keep electricity flowing within the Dublin area during the construction programme.

4.2 Overview of the Projects of the Powering Up Dublin Programme

A summary of each of the projects of the Powering Up Dublin Programme is set out below, with the exception of the five projects for which the nature and/or location are not yet known (as listed in Section 4.1). Cable projects are summarised in Section 4.2.1 and station projects are summarised in Section 4.2.2.

4.2.1 Cable Projects

Five cable replacement projects are included in the Powering Up Dublin Programme. Replacement is necessary due to the condition and age of existing cables, and also due to a requirement of EirGrid's Cable Maintenance Policy to replace all Fluid Filled cables on the network. Existing cables will be replaced with a higher capacity cable to increase capacity to 570 MVA; this is required in the context of Shaping our Electricity Future (see Section 2.1 of this Implementation Plan).

These cable projects are currently in Step 4 of the Framework for Grid Development process, within which identification and assessment of route options will be completed (though noting that the cable ducting project route is dictated by road alignment). Section 1.4 of this Implementation Plan explains EirGrid's six project development steps.

A sixth potential cable development project has been identified in the South Dublin area; however, this project has not been finally confirmed, and as such, is not addressed further in this section.

North Wall-Poolbeg 220 kV Cable Replacement

The North Wall-Poolbeg 220 kV cable was originally energised in 1980. The circuit is approximately 4.6km in length, and is a High Pressure Fluid Filled (HPFF) cable circuit. The existing cable requires to be replaced both due to its condition and age, but also due to a requirement of EirGrid's Cable Maintenance Policy to replace all Fluid Filled cables on the network. The replacement of the existing cable with a higher capacity cable will bring its capacity to 570 MVA; this is required in the context of Shaping our Electricity Future. (see Section 2.1 of this Implementation Plan).

It is proposed to replace the existing cable with a new cross-linked polyethylene (XLPE) cable on a new “offline” route – i.e. on a different route to the current cable route. This has the advantage of installation being possible in isolation of decommissioning works and reducing the extent to which a system outage will be required.

The project is currently in Step 4 of the Framework for Grid Development process (see Section 1.4 of this Implementation Plan for a more detailed outline of the various Steps of EirGrid’s project development process), within which identification and assessment of route options will be completed.



Figure 9: North Wall-Poolbeg 220 kV Cable (Note: the alignment shown is the existing cable route; a route for the replacement cable has not yet been identified)

Finglas-North Wall 220 kV Cable Replacement

The Finglas–North Wall 220 kV cable was originally energised in 1979. The circuit is approximately 11.9km in length, and is a High Pressure Fluid Filled (HPFF) cable circuit, which means that the cable is contained within a steel pipe and surrounded by insulating fluid. The existing cable requires to be replaced both due to its condition and age. It is also a requirement of EirGrid’s Cable Maintenance Policy to replace all Fluid Filled cables on the network. The replacement of the existing cable with a higher capacity cable will bring its capacity to 570 MVA; this is required in the context of Shaping our Electricity Future (see Section 2.1 of this Implementation Plan).

It is proposed to replace the existing cable with a new cross-linked polyethylene (XLPE) cable on a primarily new “offline” route – i.e. on a different route to the current cable route. This has the advantage of installation being possible in isolation of decommissioning works and reducing the extent to which a significant and prolonged system outage will be required.

The project is currently in Step 4 of the Framework for Grid Development process (see Section 1.4 of this Implementation Plan for a more detailed outline of the various Steps of EirGrid’s project development process), within which identification and assessment of route options will be completed.

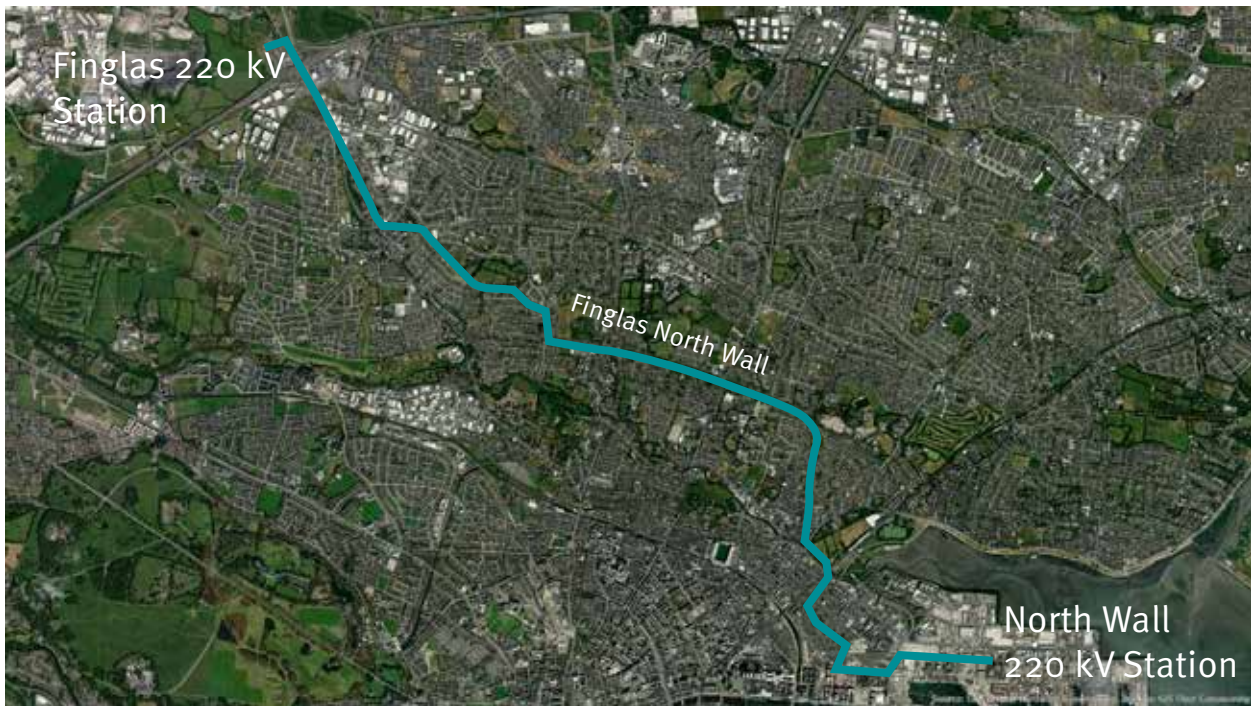


Figure 10: Finglas-North Wall 220 kV Cable (Note: the alignment shown is the existing cable route; a route for the replacement cable has not yet been identified)

Carrickmines-Poolbeg Cable Replacement

The Carrickmines–Poolbeg 220kV cable was originally energised in 1971. The circuit is approximately 14.5km in length and is a low pressure Self-Contained Fluid Filled (SCFF) cable circuit. The existing cable requires to be replaced on account of its condition and age, as well as the requirement of EirGrid’s Cable Maintenance Policy to replace all Fluid Filled cables on the system. The replacement of the existing cable with a higher capacity cable will bring its capacity to 570 MVA; this is required in the context of Shaping our Electricity Future. (see Section 2.1 of this Implementation Plan).

It is proposed to replace the existing cable with a new cross-linked polyethylene (XLPE) cable on a primarily new “offline” route – i.e. on a different route to the current cable route. This has the advantage of installation being possible in isolation of decommissioning works and reducing the extent to which a system outage will be required. However, at certain locations due to congestion, the existing cable route may have to be utilised.

The project is currently in Step 4 of the Framework for Grid Development process (see Section 1.4 of this Implementation Plan for a more detailed outline of the various Steps of EirGrid’s project development process), within which identification and assessment of route options will be completed.



Figure 11: Carrickmines-Poolbeg 220 kV Cable (Note: the alignment shown is the existing cable route; a route for the replacement cable has not yet been identified)

Inchicore-Poolbeg 1 & 2 Cables Replacement

The Inchicore–Poolbeg No.1 220 kV cable was originally energised in 1971, and is approximately 12.5km in length. The Inchicore–Poolbeg No.2 220 kV cable was originally energised in 1984 and is approximately 11.3km in length. Both are low pressure Self-Contained Fluid Filled (SCFF) cable circuits. The existing cables require to be replaced on account of their condition and age, as well as the requirement of EirGrid’s Cable Maintenance Policy to replace all Fluid Filled cables on the system. The replacement of the existing cables with higher capacity cables will bring the capacity of each to 570 MVA; this is required in the context of Shaping our Electricity Future. (see Section 2.1 of this Implementation Plan).

It is proposed to replace the existing cables with new cross-linked polyethylene (XLPE) cables on new “offline” routes – i.e. on different routes to the current cable routes. This has the advantage of installation being possible in isolation of decommissioning works and reducing the extent to which a system outage will be required.

The projects are currently in Step 4 of the Framework for Grid Development process (see Section 1.4 of this Implementation Plan for a more detailed outline of the various Steps of EirGrid’s project development process), within which identification and assessment of route options will be completed.



Figure 12: Inchicore-Poolbeg 1 & 2 220 kV Cables (Note: the alignments shown are the existing cable routes; routes for the replacement cables have not yet been identified)

4.2.2 Station Projects

Two new stations, two major station expansions, and two station refurbishment projects are proposed. Of these, information is only available for the two station expansion projects, as set out below. These projects are currently in Step 4 of the Framework for Grid Development process, within which identification and assessment of design options at the identified locations will be completed. Section 1.4 of this Strategic framework explains EirGrid’s six project development steps.

Poolbeg 220 kV Station Development

Poolbeg 220 kV Station is a critical transmission station and is a key bulk supply node for the Dublin Area. The station is comprised of both an indoor Air Insulated Switchgear (AIS) building and Gas Insulated Switchgear (GIS) building; the AIS building was constructed in 1968 while the first GIS building was installed in 1976. The GIS has been extended over time with installation of bays in 1981, 2007, 2011 and more recently in 2017. An assessment of remaining life of the station assets has concluded that substantial refurbishment involving replacement of the assets is required.

In addition, EirGrid has completed an assessment for the Commission of Regulation of Utilities (CRU) of the onshore network reinforcements that will be required to facilitate future offshore wind generation. The assessment identifies the need for a new 220 kV station at Poolbeg to accommodate future offshore connections.

To ensure continued safe and secure operation of the station, an additional 220 kV station is planned to be built offline and the circuits transferred over to the new station. Once the final circuit has been transferred to the new GIS building, the existing AIS and GIS buildings can be fully decommissioned and demolished which will create space for future development.



Figure 13: Poolbeg 220 kV Station (Note: a site for the planned new station within the overall ESB Poolbeg landholding has not yet been identified)

The project will also include for replacement of existing reactors. The existing air-cooled reactors located at the southern boundary of the Poolbeg 220 kV station (to the right of the tree belt in Figure 14) were built in 2016 and 2018. Over the intervening period, both reactors have sustained numerous faults, primarily due to the coastal weather that the reactors experience due to their proximity to the Irish Sea. However, there is a continued need to have reactors located in Poolbeg 220 kV station to provide a reliable and safe voltage support to the transmission network.

Both air-cooled reactors are planned to be replaced with fluid-filled reactors with appropriate bunding. The main advantage to using fluid filled reactors is that the reactor itself is protected by the tank that envelopes the actual reactor thereby protecting from the coastal environment. The tank shall also be specified to have the highest corrosion protection similar to other transmission assets.

Belcamp 220 kV Station

Belcamp 220 kV Station is an important transmission node at the northern edge of the Dublin City area, in proximity to the M50/M1 interchange, and to Dublin Airport. There is a need to ensure the provision of sufficient 220 kV bays at the Station to accommodate the envisaged future uses of the station, which include facilitating connection of renewable offshore wind, other major energy users, and providing additional stability to the transmission network by connecting dynamic reactive devices.



Figure 14: Belcamp 220 kV Station (Note: a site for the planned station expansion works has not yet been identified)

4.3 Implementation Timelines

The schedule below provides an indicative guide to the implementation timeline for each project, both in terms of calendar timelines, and in terms of project development progress in line with EirGrid’s six-step Framework for Grid Development.

However, it should be noted that each project is subject to its own scoping and scheduling, and these timelines have the potential to alter.

Of particular note is that the cable projects have a generally similar programme for completion and energisation – in the period 2028-2029. The South Dublin (Inchicore Carrickmines) Reinforcement has a longer lead time, as its specific strategic need, and subsequent nature, extent and location, remain to be confirmed.

With regard to the station projects, the planned development at the existing Poolbeg and Belcamp stations is anticipated to be complete and operational by 2027. As outlined above, these projects are required to facilitate connection of offshore generation onto the transmission system, and as key nodes for other transmission infrastructure development occurring in the Greater Dublin Area. The other planned station developments are at an earlier stage of project development, but it is anticipated that these will be operational in 2028 and 2029. These station developments require to be in place in order to facilitate connection and energisation of the identified cable projects.

Stations											
CP1214	North County Dublin New Bulk Supply Point CA - GW 3										
CP1208	Poolbeg 220 kV Reactors										
CP1218	West County Dublin New Bulk Supply Point										
GW3	North Wall Station Refurbishment										
GW3	East Wall Road New Station										
CP1190	Poolbeg 220 kV Substation Redevelopment										
CP1213	Belcamp 220 kV Substation Redevelopment										
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030

Cables		Note: CP1226 South Dublin Reinforcements projects currently pre-gateway 3, schedule under development step 6 will be amended once we understand more details.									
CP1226	South Dublin Reinforcement										
CP1216	North Wall - Poolbeg 220 kV New Route Replacing Existing Cable										
CP1100	Finglas - North Wall 220 kV New Route Replacing Existing Cable										
CP1146	Carrickmines - Poolbeg 220 kV New Route Replacing Existing Cable										
CP1150	Inchicore - Poolbeg #2 220 kV New Route Replacing Existing Fluid Filled Cable										
CP1157	Inchicore - Poolbeg #1 220 kV New Route Replacing Existing Fluid Filled Cable										
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030

Figure 15: Implementation Timelines (Note that these are current and indicative timelines and should not be relied upon. These will be updated continuously in accordance with project specific timelines.



4.4 Other Key Infrastructure Projects in the Plan Area

The *Powering Up Dublin* Programme is an ambitious and challenging, yet vital, major programme of electricity transmission infrastructure development in the county. However, it is important to consider the potential for cumulative impacts, taking into account other planned major infrastructure development projects, with which the Programme is likely to interact, in terms of project timelines, environmental and other impact, and potential construction efficiencies.

The key projects, among others, include:

- BusConnects
- MetroLink
- Greater Dublin Drainage project
- The Poolbeg West Strategic Development Zone (SDZ)

An outline of these projects is set out in Appendix B.

There is potential for the *Powering Up Dublin* Programme to interact with these major infrastructure projects. The specific nature and extent of such interaction cannot be confirmed in the absence of the specific designs of planned development which will be developed for each project.



5. Our Approach to Consultation and Engagement

EirGrid's public engagement strategy aims to develop a cohesive approach that reflects and is framed by the energy transition – and the urgent context of climate action. As part of this EirGrid has made community engagement and participation part of its core competence, developing effective systems to deliver and assess our public engagement. This applies to all of its grid infrastructure development, both urban and rural, including the Powering Up Dublin Programme

EirGrid's strategy for effective public engagement is based on the following goals:

- Social Acceptance: Work towards solutions that have landowner and public support
- Capacity: Increase our public engagement capacity and invest in people and tools; and
- Partnerships: Renew and revitalise our existing alliances – and develop new ones.

5.1 Social Acceptance

5.1.1 Social Acceptance Overview

Social acceptance is the biggest challenge EirGrid face when developing new electricity grid infrastructure. As a result, an emphasis on engaging with and listening to affected communities.

When EirGrid considers a range of solutions for new projects, several criteria are considered to find the best performing option. These include:

- the cost of the solution;
- the simplicity and stability of the technology;
- how challenging it is to deliver;
- its impact on the environment; and
- its impact on local economy and on society.

5.1.2 Social Acceptance Enablers

Consider the social acceptability of each solution: When EirGrid assesses grid development options for a new project, several factors are considered. As the team works towards solutions that have public support, the social acceptability of each option is considered as part of the assessment process.

Improve participation and engagement methods: When communities respond to engagement early in the process, they have a greater chance to influence the chosen solution. When communities see that their views have shaped the end result, EirGrid can progress the works with greater support. The key to achieving this is to improve levels of public participation in engagement activities. To reach this goal, EirGrid is trialling new and innovative methods of early-stage public engagement. This puts communities at the heart of our decision making.

Enhance community benefits: Since 2014, EirGrid has offered community benefit funds for major projects. This recognises the vital role that local communities make in accepting new grid infrastructure. This model showed promise in smaller projects, but needed scale to reflect the greater disruption of larger works. To reflect this, EirGrid increased community benefit funding from spring 2021 with a new approach that enables local areas to gain from a fund that benefits communities, sustainability and biodiversity. The decisions on how these funds are distributed are open, participatory and inclusive. The setup of community forums on major projects ensures there is even greater community ownership of these funds

Deliver ambitious education and information campaigns: EirGrid's approach to public engagement aims to find project solutions that are acceptable to affected communities. Alongside this, EirGrid continually seeks to increase levels of public acceptance for new grid infrastructure. To help achieve this, EirGrid is investing in a national campaign which educates and informs the public about EirGrid's

role and explains how vital it is for Ireland's response to climate change. EirGrid is developing its website to meet the needs of different stakeholders, including detailing our climate action message for the general public. These messages are also being tailored and in all project communications. Finally, EirGrid is seeking new partnerships to help promote and make accessible the ongoing levels of renewables on the grid. Together, these initiatives help us to explain that completing every project moves us all closer towards a cleaner electricity system.

Improve our approach to landowner engagement: Landowners who host EirGrid infrastructure are one of our most important stakeholders. They work around the infrastructure for the duration of its use on the grid. Specialised EirGrid liaison teams have seen increasing success in landowner engagement.-, To build on this, EirGrid is increasing the numbers of liaison personnel enabling the continued provision of tailored and direct engagement with landowners.

5.2 Public Engagement Capacity

5.2.1 Public Engagement Capacity Overview

Public engagement is now a core competence within EirGrid, with the establishment and expansion of a dedicated in-house team with specialist skills in this area. Increasing EirGrid's public engagement capacity will help support communities across the Powering Up Dublin programme of work and in the wider aims of Shaping our Electricity Future. EirGrid is developing a variety of initiatives, programmes and processes to ensure it delivers a consistent approach to consultation and engagement across both the Powering Up Dublin Programme, and the wider grid development programme.

5.2.2 Public Engagement Capacity Enablers

Review and update our processes and outputs: EirGrid identified several areas where processes and outputs needed to be updated to support this new model of public engagement. This included EirGrid's project development strategy and the assessment criteria used to assess options. New tools were also needed to provide reassurance to landowners regarding health concerns about grid infrastructure – especially fears about electromagnetic fields (EMF). The national advertising and education campaign plays a role in reassuring people on this topic.

Restructure our teams with greater focus on public engagement: The key learning from EirGrid research is the need for a dedicated programme manager for strategic projects. This role has greater oversight than the role of project managers, who can therefore focus on day-to-day progress.

Increase our public engagement capacity by adding personnel: EirGrid have increased our numbers of Community Liaison Officers and Engagement Specialists. This is further developing our capacity to working meaningfully with all stakeholders. Resourcing our public engagement competence has brought the core skills in house and has reduced our reliance on external services. This makes for a more consistent, holistic and better experience for all stakeholders, and allows EirGrid to deliver more projects on time.

Carrying out independent evaluation and certification of our public engagement every year: We are pursuing external accreditation for our public engagement activities. This will see an independent body assessing and certifying our work to a recognised international standard.

Expand our public engagement tool-kit: EirGrid acknowledges the need to increase the rate of participation in the public engagement processes. The social distancing requirements for COVID-19 accelerated trials of remote and virtual solutions, which included video conferencing and interactive online maps. These solutions continue to be used by EirGrid to expand the breadth and reach of public engagement, with data analytics to improve how we public engagement is evaluated and targeted. Focus occurs both on project-specific engagement activities, as well as on Community Forums and Energy Roadshows.

5.3 Partnerships

5.3.1 Partnership Overview

EirGrid has a deeply interconnected role in leading the changes necessary for a clean electricity system and through this creating stronger links with:

- Government;
- Local Government;
- State Bodies;
- Non-governmental Organisations (NGOs);
- Local community and voluntary groups.

It is also important to build new alliances with business, industry, education and research bodies. The alliances allow EirGrid to develop common practices with key partners, facilitating a coordinated approach to engaging with local communities.

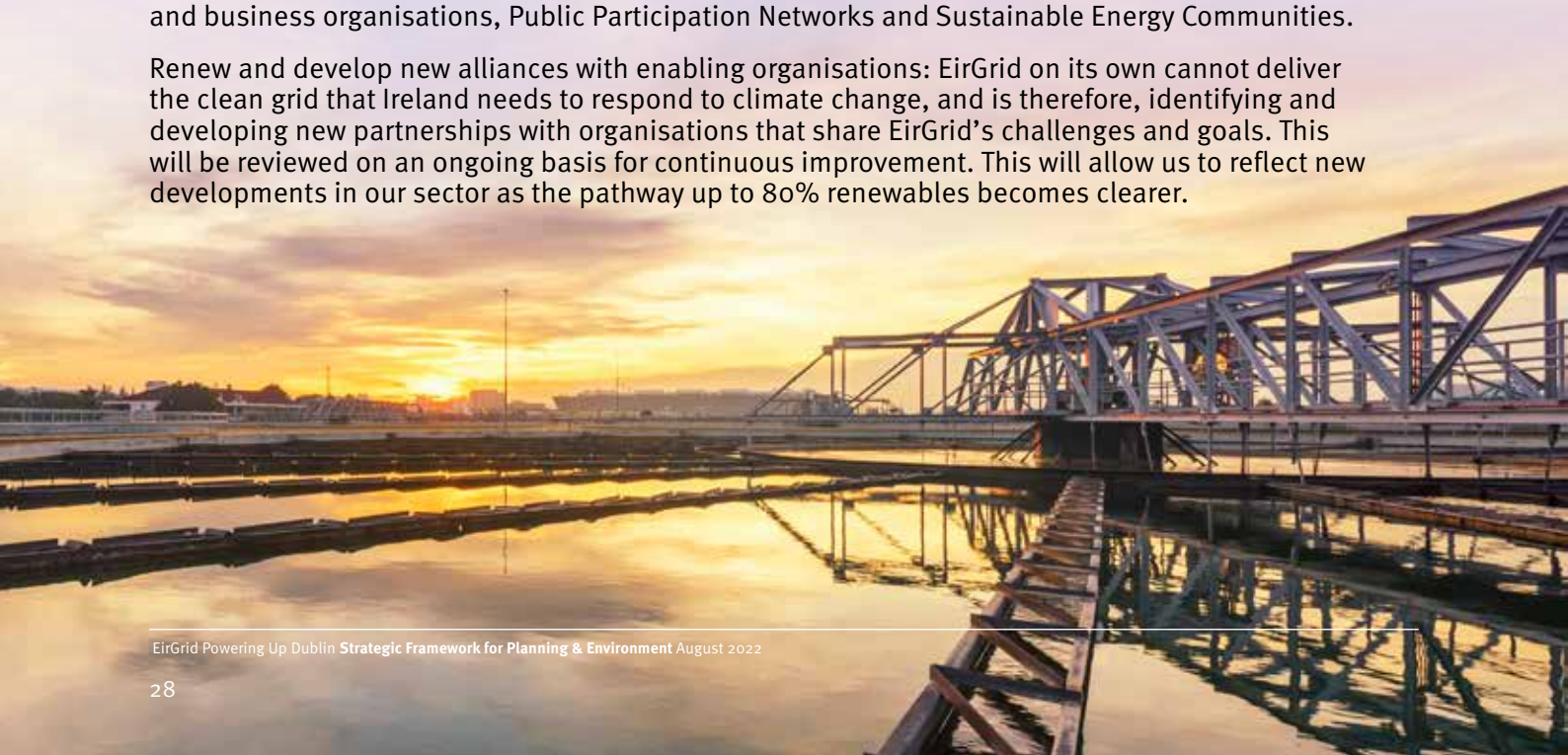
5.3.2 Partnership Enablers

Work with Government on a multi-partner campaign about climate action to support public policy: There is a need for a widespread, cross-organisation campaign to inform the public about the changes needed in the next decade. EirGrid is already leading the process by initiating its own campaign. We are now collaborating with other Government departments and agencies to align messaging on this topic. This is an essential step to educate and inform the public we engage with on the fundamental and urgent need for new grid infrastructure.

Support and encourage the energy sector to work together more effectively: Given the scale of change required in the next decade, all in the sector need to continue to work collaboratively together. This is particularly necessary to strengthen public engagement. EirGrid also needs to continue to work more closely with large-scale users of electricity in the industrial and high-tech sectors. The aim is to increase collaboration, dialogue and shared insights for mutual support and to achieve common goals.

Strengthen relationships with community organisations: EirGrid continually seeks to increase our presence and visibility in local communities. Typically EirGrid only comes to the attention of local areas when a route or site for new grid infrastructure is proposed. This is too late to build trust and have an open dialogue. In response a community education and information programme on the needs and benefits of the electricity grid is being rolled out. In doing so, EirGrid is building understanding of communities that host grid infrastructure. This helps gain a deeper internal knowledge of their priorities and perspectives. More broadly, we are also developing closer relationships with farming and business organisations, Public Participation Networks and Sustainable Energy Communities.

Renew and develop new alliances with enabling organisations: EirGrid on its own cannot deliver the clean grid that Ireland needs to respond to climate change, and is therefore, identifying and developing new partnerships with organisations that share EirGrid's challenges and goals. This will be reviewed on an ongoing basis for continuous improvement. This will allow us to reflect new developments in our sector as the pathway up to 80% renewables becomes clearer.



6. Our Approach to Project Development and Consenting

6.1 Approach to Project Development

A focus in the development of all EirGrid projects, including the Powering Up Dublin Programme, is on matters of proper planning and sustainable development. This requires a careful balancing of the technical need and solutions for a project with appropriate and adequate opportunities for public participation in the project development process. It must also include significant emphasis and focus on the environmental impact of the project, primarily in reference to the EU Habitats Directive and Environmental Impact Assessment Directive, but also in terms of social impact.

As outlined at Section 1.4 of this Strategic framework. EirGrid has been proactive in developing clear structured processes for the planning and development of electricity transmission infrastructure. The six-step Framework for Grid Development ensures the technical development of projects in collaboration with matters of planning, environment, public affairs, administrative, financial and corporate governance.

Cross-functional project teams include experienced experts in the areas of programme and project management, technology and engineering, ecology, public planning, community and landowner engagement. These experts ensure a consistent approach to the sustainable planning and development of all EirGrid projects, which in turn ensures an appropriate balance between the timely and cost efficient development of our transmission projects, and a clear and transparent structure to facilitate opportunities for public participation in project development (see also Section 5 of this Strategic framework).

6.2 Approach to Planning and Consenting of Projects

Grid infrastructure development such as the Powering Up Dublin Programme occurs within a strategic and Statutory planning and environmental context, where the focus is on matters of proper planning and sustainable development. EirGrid's in-house Planning and Environmental team provides strategic advice to project teams regarding matters of planning and consenting of projects.

Under the provisions of Section 182A of the Planning and Development Act 2000 (as amended), electricity transmission infrastructure development generally comprises Strategic Infrastructure Development (SID). This requires an application for Statutory Approval to be made directly to An Bord Pleanála, following formal pre-application consultation with the Board.

However, An Bord Pleanála can also confirm that certain grid infrastructure development is not SID for the purposes of statutory consenting, and directs EirGrid to seek Planning Permission from the relevant Planning Authority.

EirGrid also undertakes certain development which comprises exempted development – development which does not require a prior statutory consent. EirGrid has developed an internal process for deciding whether certain development is or is not exempted development. This requires, in part, a comprehensive Screening for Appropriate Assessment (AA) of the proposed development to assess risks to European sites for Nature Conservation, undertaken or managed by EirGrid's Senior Ecologist.

Where EirGrid's ecologist determines that likely significant effects can be excluded in the absence of mitigation measures intended to protect European sites, the AA Screening concludes in the publication of an Appropriate Assessment Screening Determination. This is published on EirGrid's website, as required by Irish legislation transposing the EU Habitats Directive which provides for Appropriate Assessment.

As part of the exempted development process, a statutory Declaration of Exempted Development, in accordance with Section 5 of the Planning and Development Act 2000 (as amended), may be obtained from the relevant Planning Authority.

The Irish planning system is one of the most open and transparent in Europe, and internationally, with considerable opportunity for public participation, facilitated formally by the Competent Decision-Making Authorities (An Bord Pleanála and/or the relevant Planning Authorities), but also informally

by EirGrid (see Section 1.4 and Section 5 of this Strategic framework). This requires EirGrid's planning applications to be robust, informative, accessible, and easy to understand by all parties.

EirGrid acknowledges that there will continue to be interest in the planning and consenting of their projects by those who are directly or indirectly affected by, or have concerns regarding, those project proposals. Planning applications must be prepared in a way which facilitates public understanding, and provides accessibility and opportunity for participation in the planning process, while also complying with relevant legislation and guidelines in respect of the planning and consenting of transmission infrastructure development projects.

Project proposals and consent applications, as well as Declaration Requests and decisions, will also have regard to precedent arising from decisions of the Competent Authorities, and of the High Court in Judicial Review of decisions, relating to the planning and consenting of transmission infrastructure development projects, including matters of Environmental Impact Assessment (EIA) and Appropriate Assessment (AA).



7. Our Approach to the Environment

EirGrid has a statutory obligation to ensure that the operation, maintenance and development of the national transmission system has due regard for the environment.

7.1 Strategic Environmental Assessment

EirGrid is a “competent authority” under the Strategic Environmental Assessment (SEA) Directive 2001/42/EC and national regulations for the purpose of its Programmes and Plans, including the Powering Up Dublin Programme.

EirGrid’s five year Grid Implementation Plan 2017-2022 was adopted following SEA and AA in accordance with legal requirements and best practice.

EirGrid is finalising the analysis of SEA monitoring to determine if targets for each Strategic Environmental Objective in the 2017-2022 plan were met, and if not, or in the case of knowledge gaps, what process improvements are required.

EirGrid’s SEA monitoring report on the 2017-2022 plan will conclude with a series of recommendations which will shape and influence EirGrid’s forthcoming Grid Implementation Plan (2023-2028), which this Strategic framework will feed into. The forthcoming Grid Implementation Plan (2023-2028) will be ‘screened in’ to the requirement for SEA, as a sectoral (energy) plan under the SEA Directive.

7.2 Appropriate Assessment

EirGrid will also undertake Screening for Appropriate Assessment (AA) of the forthcoming Grid Implementation Plan (2023-2028), which will include this Strategic framework, to determine if that Plan is likely to have significant effects on European sites for nature conservation, either alone or in combination with other plans or projects.

In accordance with Article 6 (3) of the EU Habitats Directive, EirGrid anticipates that a Natura Impact Statement (NIS) is required. The NIS will determine what mitigation measures are required to avoid the Grid Implementation Plan (2023-2028) having adverse effects on European sites. Mitigation measures may include inserting policies, or actions into organisational policies and practices which ensure prioritisation of nature protection, or identifying research to fill knowledge gaps.

Screening for AA of each proposed development is an integral function of EirGrid’s Environmental team, and is fundamental in determining the planning status of projects that normally fall under the category of exempted development (see Section 6 of this Strategic framework). In addition, during the pre-application process, EirGrid’s planning and ecology specialists liaise closely with statutory and non-statutory planning and environmental agencies to discuss and address any issues regarding the planning and environmental aspects of a proposed development.

Where EirGrid’s ecologist determines that likely significant effects can be excluded in the absence of mitigation measures intended to protect European sites, the Screening for AA concludes with the publication of a Screening Determination. This is published on EirGrid’s website, as required by Irish legislation transposing the EU Habitats Directive which provides for Appropriate Assessment. If potential for likely significant effects is confirmed, further assessment will be undertaken, culminating in the preparation of a NIS.

7.3 Environmental Assessment

EirGrid’s Planning and Environmental team is embedded into every grid development project, including the Powering Up Dublin Programme, in order to ensure that environmental issues are at the forefront of decision-making. Early involvement of the team in projects allows potential environmental issues to be identified and avoided or managed in the course of project development.

EirGrid is committed to ensuring continued compliance with governing law and best practice particularly in relation to protected sites and habitats, appropriately mitigating against climate

change, and avoiding and mitigating against adverse environmental impacts to biodiversity, cultural heritage, water, landscape, soils and noise.

EirGrid has also prepared Evidence-Based Environmental Studies, which examine the environmental impact of the construction and existence of transmission infrastructure in Ireland. These studies have been prepared by environmental experts with peer review from industry experts, and contributions from a steering group made up of various industry stakeholders and environmental organisations. The studies are published on the EirGrid website and will continue to be updated to take account of new information and/or developments in understanding arising from practice and research.

This section provides a brief environmental overview, focussing on EirGrid's key environmental policies and objectives which ensure appropriate protection of the environment in grid development.

7.3.1 Biodiversity

Across the Powering Up Dublin Programme, EirGrid has the overarching aim of protecting ecology while delivering essential grid projects. This is achieved in line with EirGrid's published Ecology Guidelines for Electricity Transmission Projects (2020). These Guidelines set out the types of ecological surveys likely to be required for different types of transmission projects to identify the range of sensitive ecological features requiring protection.

The Guidelines also assist our project teams in understanding how to mitigate the impact of different construction practices and electrical infrastructure on species and habitats (examples include pollution protection when drilling cables under watercourse crossings, use of ground matting to protect vegetation from tracking of machinery and silt control measures).

In the context of the Powering Up Dublin Programme, adherence to EirGrid's Guidelines will ensure the following biodiversity objectives are achieved:

- Ecological sensitivities and opportunities for biodiversity restoration influence route optioneering and design of the Powering Up Dublin Programme
- Best Practice Standards of Ecological Survey, Impact Assessment and Mitigation
- Local knowledge on ecological sensitivities is harnessed through consultation with the National Parks & Wildlife Service and Inland Fisheries Ireland staff
- Protection of sensitive watercourses, including those crossed by Horizontal Directional Drilling
- Adherence to good biosecurity practices and invasive species control in water and on land
- Coastal and inland ('ex-situ') habitats for wetland birds are protected, for instance through routing, seasonal works, or use of visual or sound-reducing hoarding
- Environmental monitoring of construction works builds in additional protection by informing adaptive mitigation (e.g. following unforeseen weather or species behaviour)
- Biodiversity restoration opportunities are considered at the start of projects, and at key decision points including land acquisition
- Time and resource is assigned to integrate biodiversity into the design of other project elements, including climate adaptation measures and visual screening.

EirGrid promotes a pro-active best practice approach to tree and hedgerow management in grid development, with the aim of avoiding in the first instance, and otherwise minimising the impact of, transmission development on existing trees and hedgerows. Furthermore, it will seek to protect and enhance habitats which function as wildlife corridors, in accordance with Article 10 of the EU Habitats Directive (e.g. by replanting temporary construction areas with native species-rich mixes).

The various projects under the Powering Up Dublin Programme may, to greater or lesser extents, be in close proximity to areas of high biodiversity value, including the interconnected complex of internationally designated Special Areas of Conservation (SAC) and Special Protection Areas (SPAs) in Dublin Bay, and the Grand and Royal Canals which are important wildlife corridors nationally designated as proposed Natural Heritage Areas (pNHA) for an assemblage of rare aquatic plants, wetland species and habitats.

The available data on the distribution of coastal birds in Dublin Bay (including The Dublin Bay Birds Project, studies of Brent goose in the scientific and planning reports) will form an important consideration for projects interacting with any coastal or inland green spaces.

The routing, mitigation design, and any monitoring requirements of the various projects within the Powering Up Dublin Programme will consider the designated features of all these protected sites, with reference to the latest Conservation Objectives published by the National Parks & Wildlife Service in the case of SACs, and SPAs. In the case of the Grand and Royal Canals, EirGrid will supplement the pNHA site synopses prepared by the NPWS, with more recent and detailed ecological and habitat survey reports published by Waterways Ireland.

7.3.2 Cultural Heritage

In accordance with EirGrid's published Cultural Heritage Guidelines for Electricity Transmission Projects (2015), it is EirGrid's policy to ensure that the special interest of protected structures, including their curtilages and settings, are avoided where possible/protected to the greatest extent possible when considering site or route options for transmission infrastructure development. It is also policy to protect known and unknown (potential) archaeological material in transmission infrastructure development, by avoidance or by best practice mitigation measures.

The projects under the Powering Up Dublin Programme have the potential to affect Cultural Heritage assets including Protected Structures, Architectural Conservation Areas and National Inventory of Architectural Heritage and proposed Natural Heritage Areas (NHA).

Construction of the Grand Canal commenced in South Dublin County in 1756, at a location west of Clondalkin. It acts as a direct physical link - and an ecological corridor - between the River Shannon and Dublin Bay and is a key element in South Dublin County's ecological and green infrastructure network. The Canal with its associated locks, canal buildings and mill structures, contribute to the setting and historic character of South Dublin County. Its towpaths also provide an uninterrupted corridor for existing (and potentially enhanced) pedestrian and cyclist movement, while the linear waterway acts as a corridor for wildlife, habitats, and ecosystem services. The Grand Canal is designated as a proposed Natural Heritage Area (pNHA), hosting a rich variety of habitats and plant and animal species, including protected species.

The Royal Canal – also a pNHA due to the rich variety of habitats and species it hosts - is an artificial waterway linking the River Liffey to the River Shannon across the north Dublin City area. The main water supply is from Lough Owel through a feeder channel into the canal at Mullingar. The Royal Canal was closed to navigation in 1961, but is currently being planned and development as a major green pedestrian and cycling route for the North City area of Dublin.

7.3.3 Population and Social Impact

The projects under the Powering Up Dublin Programme could affect resident, working and visiting populations in Dublin. EirGrid, in developing the various projects under the Programme, will seek to minimise any population and social impact. EirGrid's aim is to develop a cohesive approach that reflects and is framed by the secure transition to a low carbon electricity system – and by the urgent context of climate action.

As part of this, EirGrid will continue to consider and address social impact and the impact on human beings in the development of transmission infrastructure projects in accordance with EirGrid's methodology for Social Impact Assessment. Grid development projects are screened for the requirement for a Social Impact Assessment, and where required, such assessment will accompany an application for statutory consent.

7.3.4 Land Use and Land Acquisition

The projects under the Powering Up Dublin Programme will have the potential to affect land use and land acquisition. In this regard, EirGrid will have regard to any future National Landscape and/or Seascape Character Assessment in the development of its transmission projects, in addition to the imperative to restore biodiversity in response to the national biodiversity emergency. EirGrid will continue to protect and enhance landscapes (including urbanscapes), and will seek to avoid

and reduce visual impact on residential receptors through the sustainable planning and design of transmission infrastructure development.

EirGrid will continue to engage with landowners – in particular the relevant Planning Authorities, the Office of Public Works (OPW), and ESB – in order to explore options for the siting of the various projects which avoid or reduce potential impact on their receiving environments.

7.3.5 Traffic

The projects under the Powering Up Dublin Programme will generally result in very low traffic generation during operation, with traffic movements being limited to a small workforce and/or periodic maintenance visits.

However, there will inevitably be potential for traffic disruption, in particular with the planned laying of replacement cables in public roads throughout the urban area of Dublin. EirGrid will give significant focus to avoiding or reducing construction disruption by effective design and careful management. Environmental assessment and input to aspects such as site access and traffic routing is considered from outset – through route and site selection, to detailed design and construction.

A Traffic Management Plan (TMP) is normally developed for each project to manage and reduce any potential temporary construction traffic impacts, informed by engagement with the local Roads Authorities to agree the scope of the TMP and the measures required. Measures included in the TMP will address the need for traffic management and avoidance of undue delays for road users, safe access to and from the site, timing of vehicle trips (such as site operatives and the delivery of equipment and materials), protection and maintenance of provision for other transport modes such as walking or cycling, and the suitability of the wider road network for any abnormal loads.

7.3.6 Material Assets, Utilities and Safety

In terms of material assets, projects of the type covered by the Powering Up Dublin Programme generally do not generate significant waste during operation, typically being limited to materials generated through cleaning and maintenance. The construction phase has a higher potential to generate waste, and the appointed contractor(s) will therefore be required to prepare a detailed Construction Environment Management Plan (CEMP) prior to the commencement of construction.

The CEMP will contain a Construction Waste Management Plan (CWMP) to minimise waste and ensure correct handling and disposal of construction waste streams. The key principles underlying the plan will be to minimise waste generation, to segregate waste at source to optimise reuse and recycling, and to direct correct disposal of waste to licensed / permitted disposal facilities where it cannot be reused or recycled.

The implementation of Method Statements will also be required for key construction activities. Their production includes a review of the environmental / health and safety risks and commitments, so that appropriate control measures are developed and included within the construction process. Method Statements will be reviewed by the Contractor's Project Manager with input from environmental specialists where appropriate, and may also be submitted to the relevant regulatory authorities. Method Statements will cover aspects such as the location and duration of the activity, activities and methods of construction; plant and materials to be used, labour and supervision requirements; health, safety, and environmental considerations (including relevant control measures); and permit or consent requirements.

Consultation will also take place with utilities service providers (e.g. water, telecommunications, gas or electricity) to inform appropriate site location, design and layout, including opportunities for coordinating works to minimise duplication of construction programmes – an example of this is already being pursued with the planned laying of cable ducts as part of the Glenamuck Road Distributor Scheme – see Section 4.2.5 of this Implementation Plan; and also prior to any construction works to identify any services that could be affected on site. Site specific risk assessments will be completed as appropriate, and any protective provisions agreed in advance with the service providers to ensure a safe working environment.

PART C: Next Steps

This Strategic framework for the Powering Up Dublin Programme provides a high level overview of how EirGrid plans its projects, and provides the context of how each of the 12 projects forming the Powering Up Dublin Programme fit within the wider schedule of network improvements.

The Strategic framework demonstrates how EirGrid uses a consistent project planning process to explore options and make decisions on every project. The decision-making tools used, and the type and level of engagement at each step, depends on the scale and complexity of each project. Each project will therefore have its own development strategy, although projects could be combined in whole or in part for planning, engineering and communications purposes.

Initial screening and scoping of project requirements will be undertaken to confirm the appropriate approach to matters of project development, planning and consenting, and consultation and engagement.

There will be ongoing and extensive engagement with key stakeholders focussed on the sustainable development of the Powering Up Dublin Programme. This includes Planning Authorities, An Bord Pleanála, prescribed bodies, other statutory and non-statutory agencies and authorities, the general public and communities, and strategic landowners and or utility and related operators.

The overall vision of this approach is that the Powering Up Dublin Programme will be realised as a key enabler of National Policy for climate action, economic investment, and proper planning and sustainable development.

Appendix A - Relevant National, Regional, and Local Planning Policy

Relevant National Planning Policy

The Climate Action Plan 2021 – Securing Our Future

The Climate Action Plan sets a roadmap for taking decisive action to halve emissions by 2030 and reach net zero no later than 2050, as committed to in the Government of Ireland’s Programme for Government: Our Shared Future (2020).

The Irish Government of Ireland recognises that to make this transition, Ireland needs a collaborative effort by government, business, communities, and individuals. The National Dialogue on Climate Action (NDCA) is a Government of Ireland initiative led by the Department of Environment, Climate and Communications (DECC) and is the primary mechanism to achieve this. The NDCA aims to deliver ‘a systematic means of actively engaging stakeholders and the public with climate action across Ireland enabling and empowering people at a local and national level’. Section 8 of the plan confirms that Ireland’s government will engage with people, ensuring that they are empowered to take the actions needed to build an Ireland where:

- ‘Our communities are healthy and secure, enjoy cleaner air and water, and where homes are warmer and cheaper to heat
- Thousands of new jobs are created by investing in areas like offshore wind, retrofit and cutting-edge agriculture
- We cut our dependence on imported fossil fuels, and power comes from our own indigenous renewable resources including wind and solar
- Walking and cycling are safe and accessible, public transport is cleaner and more frequent, and the rollout of electric vehicles is supported nationwide
- Farmers have certainty that their industry has a viable future where farmers can continue producing world-class food with an even lower carbon footprint’.

Among the most important measures in the plan is to increase the proportion of renewable electricity to up to 80% by 2030, including an increased target of up to 5 GW of offshore wind energy. This will reduce emissions from electricity and also enable electrification of other sectors such as transport and heat to reduce emissions in these sectors too.

The Climate Action Plan states that in addition to the upcoming microgeneration support scheme for householders the government will introduce a small-scale generator scheme for farmers, business, and communities to generate their own electricity and feed into the grid.

Project Ireland 2040 – National Planning Framework

The National Planning Framework (NPF), published in 2018, is a planning framework to guide development and investment, establishing a set of national objectives and key principles to guide each region to lead the planning and development of their communities. The provisions of the NPF must be reflected in regional and local policy and plan-making.

Section 1.3 of the NPF addresses Shared Goals – Our National Strategic Outcomes. These underpin the ambition of the NPF to create a single vision, a shared set of goals for every community across the country. Relevant to this Implementation Plan, National Strategic Outcome 8 is Transition to a Low Carbon and Climate Resilient Society which states:-

“New energy systems and transmission grids will be necessary for a more distributed, more renewables focused energy generation system, harnessing both the considerable on-shore and off-shore potential from energy sources such as wind, wave and solar and connecting

the richest sources of that energy... The development of onshore and offshore renewable energy is critically dependent on the development of enabling infrastructure including grid facilities to bring the energy ashore and connect to major sources of energy demand”.

An identified policy and action to realise National Strategic Outcome 8 is to “Reinforce the distribution and transmission network to facilitate planned growth and distribution of a more renewables focused source of energy across the major demand centres”.

Further to this, National Policy Objective 47 states to strengthen all-island energy infrastructure and interconnection capacity, including distribution and transmission networks to enhance security of electricity supply”.

Relevant Regional Planning Policy

Regional Spatial and Economic Strategy for the Eastern and Midland Region – 2019-2031

The RSES for the Eastern and Midland Region builds on the foundations of the NPF to manage future growth in the region. For example, in Section 7.9 of the RSES, in respect of Climate Change, it notes the provisions of the NPF that new energy systems and transmission grids will be necessary for a more distributed, renewable energy focused system.

Section 10.3 of the RSES addresses Energy, and states in respect of grid infrastructure development:-

“The Dublin Region is the major load centre on the Irish electricity transmission system. Approximately one third of total demand is located here, similarly the Eastern Region is a major load centre on the Irish transmission system. The main urban demand centres are composed of a mix of residential, commercial and industrial demand, which is expected to grow up to 2025 and beyond. Developing the grid in the Region will enable the transmission system to safely accommodate more diverse power flows from renewable generation and also to facilitate future growth in electricity demand. These developments will strengthen the grid for all electricity users, and in doing so will improve the security and quality of supply. This is particularly important if the Region is to attract high technology industries that depend on a reliable, high quality, electricity supply”.

In support of this, Regional Policy Objective (RPO) 10.20 of the RSES is to: “Support and facilitate the development of enhanced electricity and gas supplies, and associated networks, to serve the existing and future needs of the Region and facilitate new transmission infrastructure projects that might be brought forward in the lifetime of this Strategy. This includes the delivery of the necessary integration of transmission network requirements to facilitate linkages of renewable energy proposals to the electricity and gas transmission grid in a sustainable and timely manner subject to appropriate environmental assessment and the planning process”.

RPO 10.22 states an objective to: “Support the reinforcement and strengthening of the electricity transmission and distribution network to facilitate planned growth and transmission/ distribution of a renewable energy focused generation across the major demand centres to support an island population of 8 million people, including:

- Facilitating interconnection to Europe, particularly the ‘Celtic Interconnector’ to France and further interconnection to Europe/the UK in the longer term
- Facilitating interconnection to Northern Ireland, particularly the ‘North-South Interconnector and further co-operation with relevant departments in Northern Ireland to enhance interconnection across the island in the longer term
- Facilitating transboundary networks into and through the Region and between all adjacent Regions to ensure the RSES can be delivered in a sustainable and timely manner and that capacity is available at local, regional and national scale to meet future needs
- Facilitate the delivery of the necessary integration of transmission network requirements to allow linkages of renewable energy proposals to the electricity transmission grid in a sustainable and timely manner

- Support the safeguarding of strategic energy corridors from encroachment by other developments that could compromise the delivery of energy networks”.

RPO 10.23 is an objective to: “Support EirGrid’s Implementation Plan 2017 – 2022 and Transmission Development Plan (TDP) 2016 and any subsequent plans prepared during the lifetime of the RSES that facilitate the timely delivery of major investment projects subject to appropriate environmental assessment and the outcome of the planning process, in particular:

- Support reinforcement of the Greater Dublin Area between Dunstown and Woodland 400 kV substations to increase the capacity of the often congested and highly loaded Dublin transmission network to enable the transmission system to safely accommodate more diverse power flows and also facilitate future load growth in the area
- Support the installation of additional transformer capacity and increased circuit capacity to meet Dublin demand growth to strengthen the network for all electricity users and improve the security and quality of supply
- Support the Laois-Kilkenny Reinforcement Project to strengthen the network in large parts of the Midlands and provide additional capacity for potential demand growth in the wider region and strengthen the Region’s transmission network by improving security and quality of supply and ensuring there is the potential for demand growth”.

Relevant Local Planning Policy

Dublin City Development Plan 2016 – 2022

The Dublin City Development Plan provides an integrated, coherent spatial framework to ensure Dublin City is developed in an inclusive way which improves the quality of life, whilst also being a more attractive place to visit and work.

As outlined in the Development Plan, the demand for electricity in the east region is expected to increase by over 80% by 2025. ESB Networks is the key provider of electricity infrastructure in Ireland, working with EirGrid, which is responsible for development and operation of the transmission system.

The plan notes that EirGrid’s grid development strategy is designed to ensure that the transmission network has the capacity to provide for growth in electricity demand between now and 2025.

Section 9.5.13 of the Development plan focuses on Energy Facilities. It acknowledges that the development of a secure and reliable energy network is recognised as an important element for not only supporting economic development but also providing for the needs of every sectoral interest in the city. The Plan advises that ‘Dublin City Council will support a wide range of energy supply solutions to meet future demand, with particular emphasis on renewable energy sources and those which are less carbon intensive’.

The Plan acknowledges that Dublin City Council will support the statutory providers of national grid infrastructure by safeguarding identified strategic corridors, identifying that the Council ‘will be open to the future requirements of the major service providers including Bord Gáis, Eirgrid (sic) and the ESB, where it is proposed to enhance or upgrade existing facilities or networks, or provide new infrastructure in order to extend or strengthen energy supply to meet demand and meet climate reduction targets’.

Relevant policies identified within the development plan include:

- S131: ‘To support and facilitate the development of enhanced electricity and gas supplies, and associated networks, to serve the existing and future needs of the city, and facilitate new transmission infrastructure projects’
- S132: ‘To require that the location of local energy services such as electricity, telephone and television cables be underground wherever possible, and to promote the undergrounding of existing overhead cable and associated equipment, where appropriate.’

Dublin City Draft Development Plan 2022-2028

The draft Dublin City Development Plan sets out how the city will develop to meet the needs of residents, workers and visitors, with an overarching strategic approach to develop a low carbon, sustainable and climate resilient city. It is envisaged within the draft plan that by 2050, Dublin will be a zero carbon city with all of its energy coming from renewables.

The draft plan acknowledges that under the Climate Action and Low Carbon Development (Amendment) Act 2021, 'Ireland is committed to cutting its greenhouse gas emissions by 51% by 2030 (relative to a baseline of 2018) and Dublin City will have a key part to play in achieving this target'. It also notes the commitment under the National Climate Action plan that '70% of our electricity needs will come from renewable sources by 2030', and that the phasing out of coal and peat-fired electricity generation, reinforcing the grid and increasing renewables are key to achieving this target.

Section 9.5.12 of the draft plan focuses on Energy Utilities. It acknowledges that in order to support the social and economic development of the city, there needs to be a focus on development of low carbon, resilient, reliable and indigenous energy sources and networks.

The draft plan identifies a commitment to support energy utility providers (Policy S149) in efforts to reinforce and strengthen existing utility infrastructure and transmission/ distribution networks, including supporting new infrastructure projects and technologies in line with the Electricity and Gas Networks Sector Climate Change Adaptation Plan (2019).

Further policies and objectives identified within the draft plan include:

- Policy S150 commits to undergrounding electricity, telephone and television cables where possible and promoting the undergrounding of existing overhead cables where appropriate.
- Policy S151 promotes renewable energy generation, use and storage to meet national objectives towards achieving a low carbon economy by 2050.
- Policy S152 supports the development of the Poolbeg peninsula as a Sustainable Energy and Infrastructure Hub for Dublin with a strategic role in accommodating the city's critical hard infrastructure.
- Objective SIO28 supports EirGrid's Grid Development Strategy, Grid Implementation Plan 2017 – 2022 and Transmission Development Plan 2016 and any subsequent plans prepared, in order to provide for the safe, secure and reliable supply of electricity.
- Objective SIO29 supports the roll- out of the Smart Grids and Smart Cities Action Plan (2013).
- Objective SIO30 supports the sustainable development of Ireland's offshore renewable energy resources in accordance with the National Marine Planning Framework (2021) and Offshore Renewable Energy Development Plan (2019).

South Dublin County Development Plan 2016-2022

The policies and objectives set out in the South Dublin County Development Plan are underpinned by the following considerations:

- a) Quality of Life;
- b) Prosperity;
- c) Sustainability;
- d) Health and Wellbeing;
- e) Social Inclusion; and
- f) Climate Change Adaptation.

The continued growth across South Dublin County will require energy to power homes, businesses, public services and transport. The Plan identifies that 'a reliable, robust and efficient energy system that caters for growth across all sectors will be required to underpin the future development of the County'. It acknowledges that the County should aspire to becoming as carbon neutral as possible and make every effort to increase energy efficiency and unlock renewable energy potential.

The Plan notes that the Council has adopted a proactive approach to addressing the energy challenge, addressing energy use and efficiency in existing and new building stock. The South Dublin Spatial Energy Demand Analysis identified within the Plan developed a number of objectives for promoting energy efficiency and renewable energy including:

- ‘E2 Objective 1: To develop planning policies and objectives in relation to energy planning on a spatial understanding of the existing and future energy demands of the County.
- E2 Objective 2: To seek to reduce reliance on fossil fuels in the County by reducing the energy demand of existing buildings, in particular residential dwellings.
- E2 Objective 3: To promote the generation and supply of low carbon and renewable energy alternatives, having regard to the opportunities offered by the settlement hierarchy of the County and the built environment’.

The Plan also addresses the need for the Council to work in partnership with existing service providers, in particular, ESB Networks, EirGrid and Gas Networks Ireland to facilitate the enhancement and upgrade of existing infrastructure and networks.

South Dublin Draft County Development Plan 2022-2028

The South Dublin County Draft Development Plan identifies the land use framework to guide future development within the County, focussing on the places we live, work, and how we interact and move between these places while protecting our environment.

The draft plan sets out a strategy to co-ordinate and prioritise areas of population growth, accommodating up to 46,500 people by 2028 and moving towards an additional 80,000 people and 32,000 new homes by 2040, in line with National and Regional population targets.

Section 10: Energy notes that a key driving force behind the Plan is responding to climate change issues. The Plan includes a range of policies to promote renewable energy including solar and wind, developing green infrastructure and transitioning energy usage away from fossil fuels.

The Plan recognises that Eirgrid will continue to upgrade Ireland’s electrical infrastructure, referencing recent reinforcement of the electricity network to meet the demands in Grange Castle. Policy IE5 of the draft plan focuses on Information and Communications Technology (ICT), with IE5 Objective 2 for South Dublin County Council identifying :

‘To co-operate with the relevant agencies to facilitate the undergrounding of all electricity, telephone and television cables in urban areas wherever possible, in the interests of visual amenity’.

Dún Laoghaire-Rathdown County Development Plan 2022-2028

The Dún Laoghaire-Rathdown County Development Plan guides future growth and development in the County, setting out policy objectives and an overall strategy. The Plan sets out an approach ‘centred on the core principle of sustainability with a focus on creating vibrant, liveable, climate resilient communities’.

Section 10.5 of the Plan focuses on Energy Policies; Policy Objective EI18: Energy Facilities states:

‘It is a Policy Objective to encourage the provision of energy facilities in association with the appropriate service providers and in accordance with ‘Government Policy Statement on the Strategic Importance of Transmission and Other Energy Infrastructure’ (2012).’

The policy objective also acknowledges that the council will facilitate the expansion of services and infrastructure of existing service providers, notably Bord Gáis, EirGrid, the Electricity Supply Board (ESB), and other strategic electricity infrastructure developers and statutory undertakers, in order to ensure satisfactory levels of supply and to minimise constraints for development.’

Where strategic route corridors have been identified, to support the statutory providers of national grid infrastructure it is an objective to safeguard these corridors from encroachment by other developments.

Policy objective EI19 seeks ‘the undergrounding of all electricity, telephone and television cables

wherever possible, in the interests of visual amenity and public health'. It is advised that where undergrounding of cables is pursued, it should be demonstrated environmental impacts are minimised including impacts on:

- Habitat loss as a result of removal of field boundaries and hedgerows;
- Short to medium term impacts on the landscape;
- Impacts on underground archaeology; and
- Impacts on surface waters as a result of sedimentation.

Fingal County Development Plan 2017- 2023

Section 7.3 - Energy and Climate Change - of the Fingal County Development Plan addresses energy networks. It notes that the Plan has an important role to play in progressing a sustainable energy policy in the County, recognising the role of land use planning in helping Ireland realise its potential to be a low carbon society, mitigating the impacts of climate change.

The Plan identifies that Fingal's location within the Greater Dublin Area underpins significant development of a residential and commercial nature likely to be undertaken during the plan period. It acknowledges that the Council will work in partnership with existing service providers, particularly EirGrid, ESB Networks, and Gas Networks Ireland to facilitate required enhancement and upgrading of existing infrastructure and networks. It is the policy of the Council to support and protect strategic energy corridors.

The Plan identifies the policy of the Council to support and project strategic energy corridors, with objective EN22 identifying the need to :

'Facilitate energy infrastructure provision at suitable locations, so as to provide for the further physical and economic development of Fingal.'

Fingal Draft County Development Plan 2023-2029

The draft plan is underpinned by a strategic vision to guide the sustainable future growth of Fingal, with the vision of 'healthy placemaking, building cohesive and sustainable communities, where our cultural, natural and built environment is protected' at its core.

The draft plan aims to form a coherent development strategy to 2029 and beyond. The strategic vision recognises the potential of Fingal and aligns with the key growth objectives set out in the higher order spatial plans and to take advantage of the strategic assets of the County.

Section 5.5.3 of the draft plan focuses on Energy, in which it identifies that a key part of the Council's efforts to tackle the climate emergency is a switch to renewable sources and to make current use of energy more efficient. The decarbonisation of the energy sector by shifting from fossil fuels to low or zero-carbon energy sources is a key element of climate action policy.

The draft plan acknowledges the National Climate Action Plan commitment to have 70% of electricity coming from renewable sources by 2030, citing the phasing out of coal and peat fired electricity generation, increasing renewable electricity and reinforcing the grid (including greater interconnection), putting systems in place to manage intermittent sources of power along with as key to achieving this target. ,

The draft plan outlines a number of strategic aims which continue to identify and support the provision of key infrastructure at strategic development sites. One of these aims is:

'Facilitate and promote the development of energy networks to facilitate sustainable growth and economic development and support the transition to alternative, renewable, decarbonised and decentralised energy sources, technologies and infrastructure'.

The draft plan identifies the objective to support the development of a safe, secure and reliable supply of electricity, and to encourage the development of enhanced networks, including facilitating new transmission infrastructure projects under EirGrid's Grid Development Strategy supported by Policy IUP30. This will be achieved through continued support of energy utility providers in their efforts to reinforce and strengthen existing utility infrastructure and transmission / distribution networks.

Appendix B - Other Major Infrastructure Projects in the Plan Area

BusConnects

BusConnects is a key part of the government’s policy to improve public transport and address climate change in Dublin and other cities. The programme for BusConnects Dublin aims to provide management, technological, fleet, policy and infrastructure elements to provide a better, more reliable and efficient bus service.

The BusConnects Programme has been given Government approval to enter the planning system with statutory applications for all 12 Core Bus Corridor schemes being submitted throughout 2022.

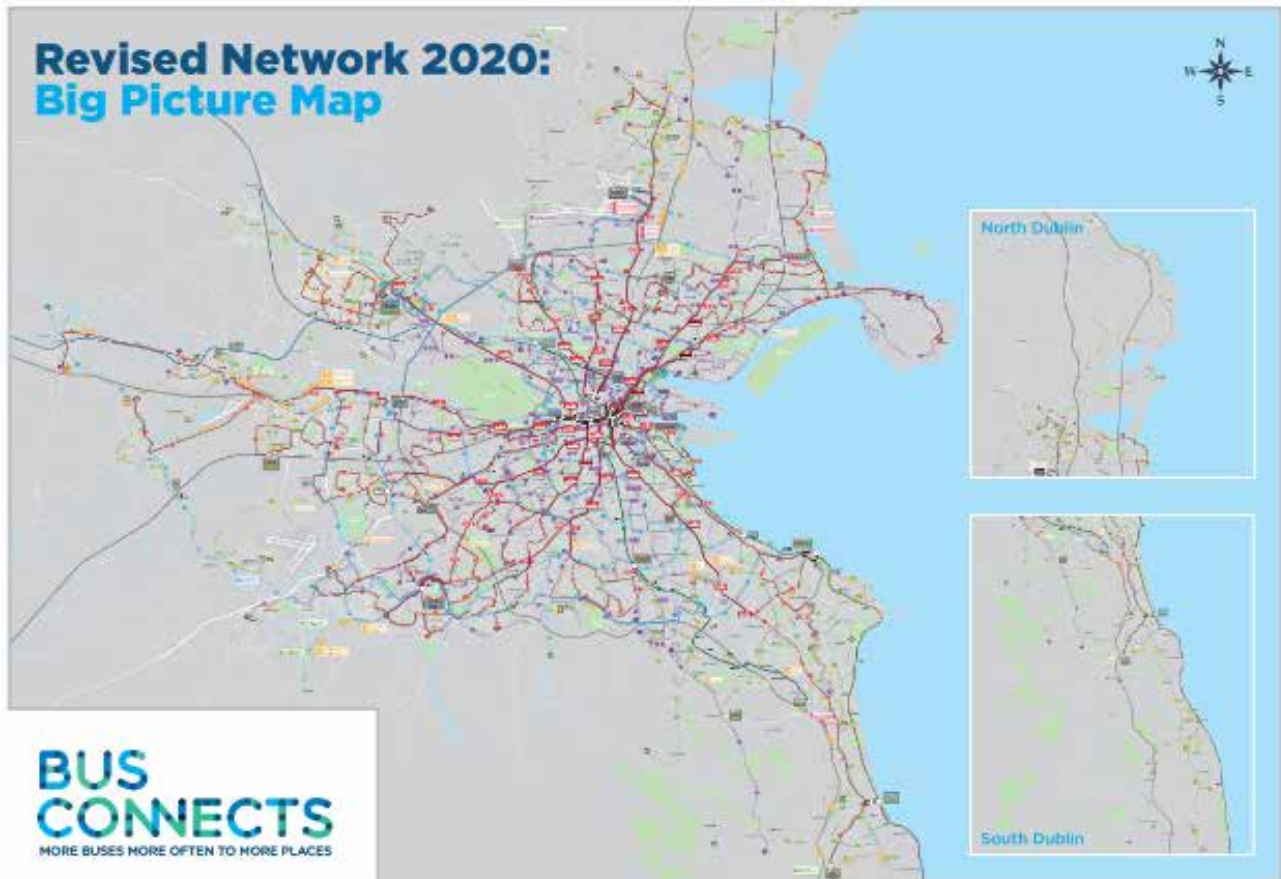


Figure 16: BusConnects Proposed Network (source: National Transport Authority)

MetroLink

The MetroLink project is a 19km proposed high-capacity, high-frequency rail line between Swords and Charlemont. The project will link Dublin Airport, Irish Rail, DART, Dublin Bus and Luas services creating fully integrated public transport in the Greater Dublin Area. It is currently expected that an application for a Railway Order will be lodged in 2022.



Figure 17: MetroLink preferred route (source: Transport Infrastructure Ireland)

Greater Dublin Drainage project

The Greater Dublin Drainage (GDD) project involves the provision of major new wastewater treatment works, a marine outfall, and a new drainage network in the northern part of the Greater Dublin Area. The project will treat wastewater arising in Fingal (areas from Blanchardstown to Clonshaugh including from the Dublin Airport Zone), from northern parts of Dublin City, from south-east Meath and from north-east Kildare.

In summary, the GDD project solution includes:

- A new regional wastewater treatment facility and sludge hub centre on a 30 hectare site at Clonshaugh;
- An underground orbital sewer from Blanchardstown to Clonshaugh, including a new pumping station at Abbotstown;
- A sewer to divert part of the North Fringe Sewer to the new treatment facility;
- An outfall pipe from the wastewater treatment facility discharging the treated water to the Irish Sea; and
- A regional biosolids storage facility located at Newtown/Kilshane, Dublin 11.

Construction of the water treatment works and associated infrastructure is estimated to take three years, with construction starting in 2022.



Figure 18: The Route of the Greater Dublin Drainage Scheme (source: Irish Water)

The Poolbeg West Strategic Development Zone (SDZ)

On 17th May 2016, the Government designated Poolbeg West a Strategic Development Zone (SDZ). The identified area, comprising 34 hectares (or approx. 84 acres), were deemed to be of economic and social importance to the state.

The area of the SDZ is bounded to the north by Pigeon House Road, to the west by Sean Moore Road, and to the south by Sean Moore Park. It extends in an easterly direction along Sandymount Strand as far as Irishtown Nature Park. The southern edge of the SDZ area is adjacent to Dublin Bay, while its northern edge is bounded by the major utilities installations located in the centre of the peninsula.

The southern portion of the SDZ lands contains the former Irish Glass Bottle (IGB) land (10.1 hectares) and the adjacent Fabrizia land – a brownfield site of 4.6 ha. The eastern portion of the SDZ lands comprises a 10.7 ha site which is the last area owned by Dublin Port yet to be developed for port-related purposes. The northern portion of the SDZ lands comprises a 7.5 ha site owned by Dublin Port, and is in active use as a storage, maintenance and refurbishment of shipping containers area to serve the Dublin Port Load-on Load-off (LoLo) shipping facility. White Bank Road runs south west to north east through this portion of SDZ lands (see Figure 20 below).



Figure 19: Aerial View of the Poolbeg West SDZ (source: Figure 1.3 of the Poolbeg West SDZ Planning Scheme)

The designated area in the Order is for a mixed use development which may principally include residential development, commercial and employment activities including, office, hotel, leisure and retail facilities, port related activities and the provision of educational facilities, transport infrastructure, emergency services and the provision of community facilities

The lands to the south of South Bank Road are to be developed at an approximate ratio of 80-85% residential and 15-20% commercial, complemented by community, recreational, retail and service uses at an appropriate scale to support a sustainable residential and working community with minimal commuting.

The residential potential within the 34 ha of available lands set out in the SDZ Planning Scheme is for between 3,000 and 3,500 additional residential units at a gross residential density of up to 238 units per ha (uph) on lands to the south of South Bank Road. This estimated housing yield equates to a residential population of circa 8,000. The Poolbeg West SDZ Planning Scheme also estimates that the SDZ area can accommodate 80,000–100,000m² of commercial floorspace, providing employment for up to 8,000 workers. The c.17 ha port lands at the north and east of the SDZ are necessary to provide additional port capacity as part of Dublin Port Company’s anticipated growth from a throughput of 30 million tonnes to 77 million tonnes per annum by 2040.

Figure 21 below, reproduced from Figure 2.1 of the SDZ Planning Scheme, provides a Concept Plan for the SDZ area.

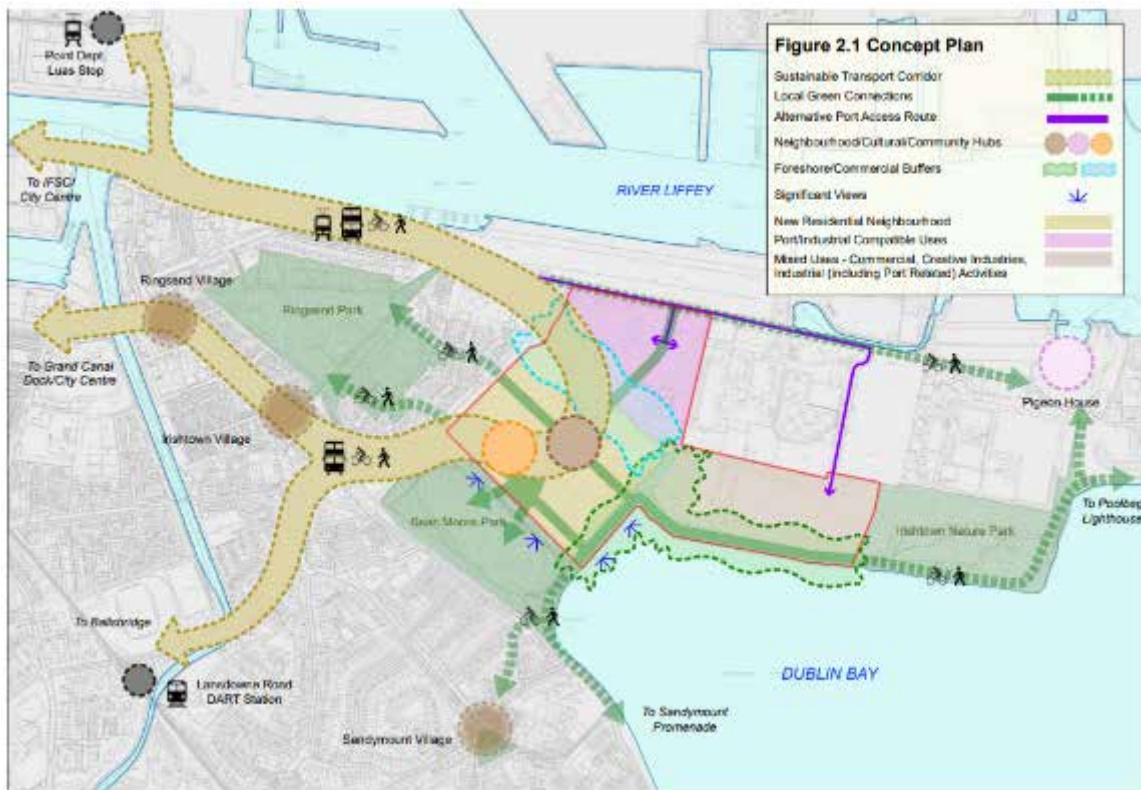


Figure 20: Concept Plan for the Poolbeg West SDZ (source: Figure 2.1 of the Poolbeg West SDZ Planning Scheme)

Section 7.3 of the SDZ Planning Scheme addresses “Challenges” and notes that “There are two power stations on the peninsula, both of which are required in the long term for electricity generation. All existing high voltage powerlines are considered critical to ESB national operations and cannot be removed. Diversion of these powerlines would be prohibitively expensive”. At Section 7.4 of the Planning Scheme – “The Way Forward”, it states that “In order to achieve the vision of the SDZ Planning Scheme and the key principles, delivery of infrastructural services is essential and this will be achieved through the strategy of..... The securing of corridors for utility infrastructure to match the spatial pattern of development”.

The SDZ Planning Scheme was approved by An Bord Pleanála on April 9th 2019, Early phases of development are occurring under the Planning Scheme, particularly focused on the IGL site.





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