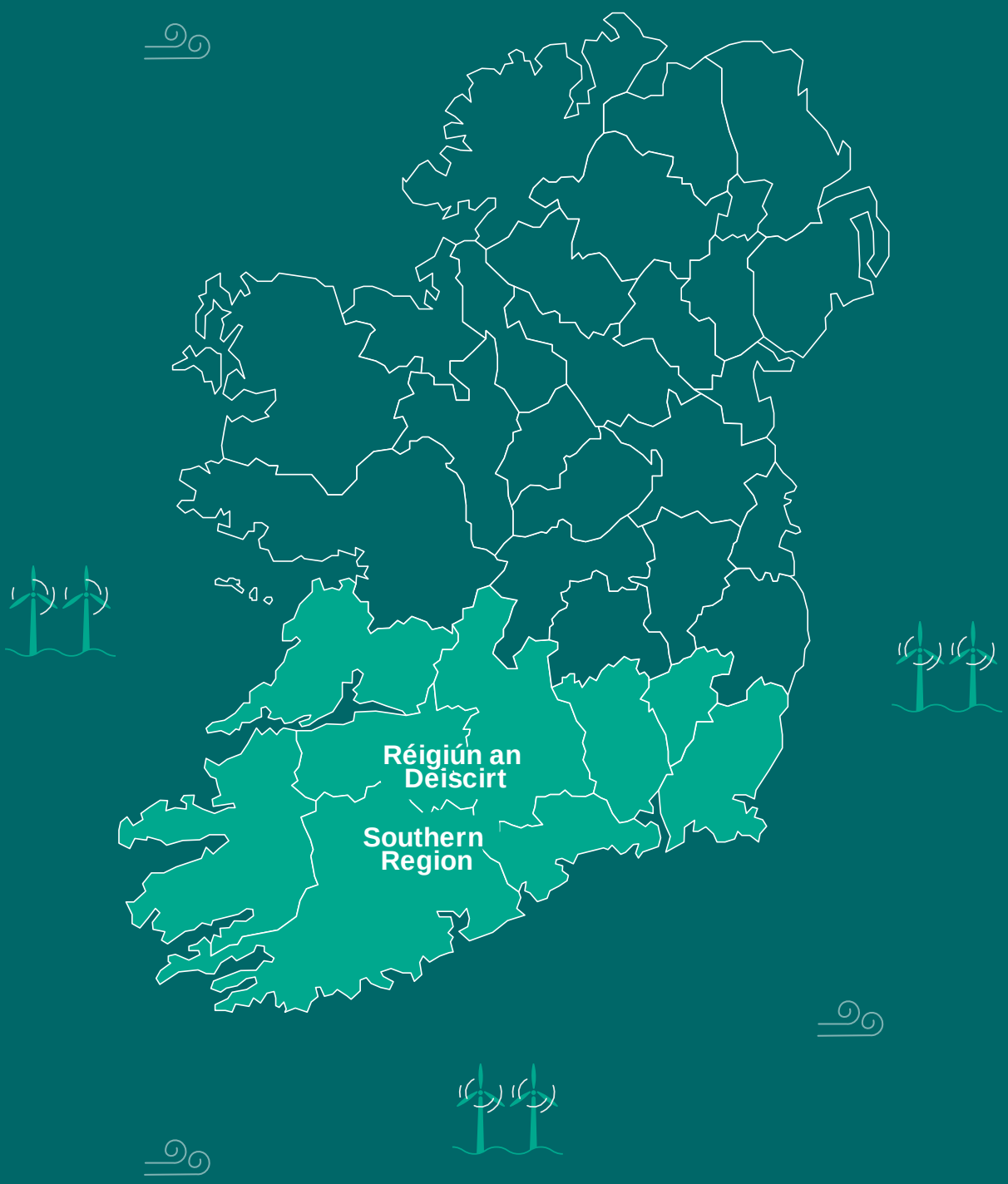
EirGrid

EirGrid.ie

Strategic Framework for Grid Development

In the Southern Region

September 2025


Réigiún an
Deiscirt
Southern
Region

Glossary of terms

Regional programme
The planned grid development projects in the Southern Region, as outlined in this document.

New infrastructure project
New overhead lines and underground cables (circuits) or substations.

Innovation project
'Non-wire' technological solutions such as:

- **Dynamic Line Rating (DLR):**
  This is a device placed on an existing overhead line with a range of sensors inside. It enables a more efficient use of the power carrying capacity of an overhead line while enhancing its safe operation.
- **Power Flow Controller (PFC):**
  This is substation infrastructure connected with circuits to provide control of the circuit's power flow.

We bring innovation (such as new materials, technology, software, etc.) to all of our projects. For this document, innovation projects are just the DLR and PFC projects.

Optimisation project
Improvements of existing assets (e.g., works to an existing substation or uprate an existing circuit. The uprate can involve new overhead lines or towers. However, as it is a uprate of an existing circuit, it is not considered to be a new infrastructure project).

Linear circuit project
A new overhead line, underground cable, or marine cable project.

Existing circuit upgrade project
The improvement or enhancement of an existing overhead line or underground cable.

Assets
Any high-voltage electrical equipment (e.g., a substation).

Upvoltage or uprate
The improvement of an existing circuit (overhead line or underground cable) which allows it to carry a greater amount of electricity. This can mean an increase in the electrical flow (e.g., upvoltage) or the operating temperature of the circuit (e.g., uprate).

Table of contents

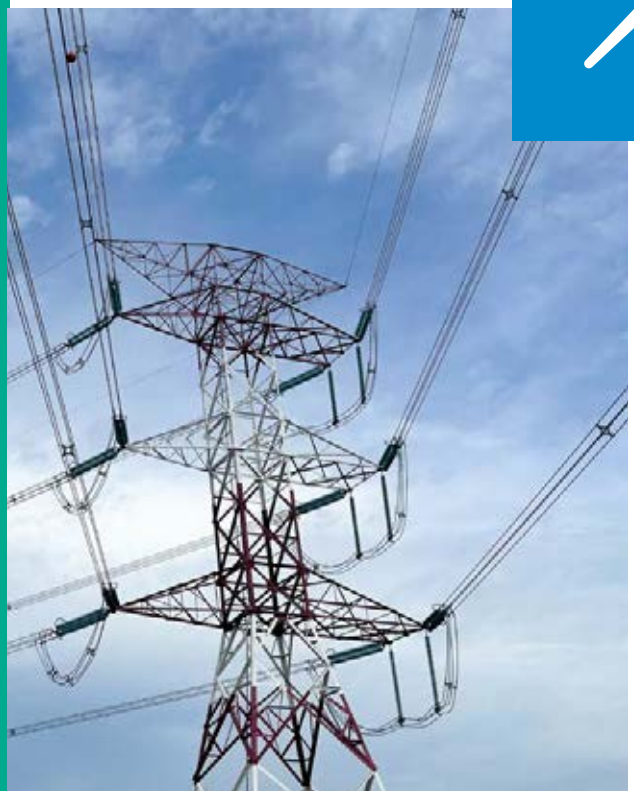
Part 1: Introduction

1.1 About EirGrid

EirGrid as Transmission System Operator (TSO) develops, manages and operates the transmission grid in Ireland. The grid transports power from where it is generated to where it is needed. EirGrid is also leading the secure transition of the electricity grid to a sustainable low-carbon future.

The grid brings power to industry and businesses that use electricity. It also powers the distribution network, owned and operated by ESB Networks, which supplies the electricity used in homes, businesses, schools, hospitals, and farms.

We balance supply and demand every minute of the day, while also planning for Ireland's long-term electricity needs.



1.2 Our role

As the Transmission System Operator for Ireland, EirGrid has a unique role to play in transforming our power system to meet the needs of today as well as the future. As we continue working towards the Government's 2030 targets for renewable energy, we are also working towards meeting the national climate objectives in the run up to 2050.

Meeting government decarbonisation targets, while providing a secure electricity supply will be very challenging and means we will need to redefine the way our energy systems work.

In order to meet the energy demands of tomorrow, we will need to identify solutions that are able to account for aspects such as:

- Increasing demand for electricity – decarbonising society means we will need to electrify our energy demands changing the way we travel as well as heat our homes and workplaces.
- Powering our economy by an energy system led by renewables such as wind and solar.
- Building a stronger transmission grid, both onshore and offshore, that can support renewables and increasing demand for electricity.
- Improving our energy security by investing in low-carbon domestic generation capacity.
- Putting in place enough energy storage and interconnections with other countries to complement our system.

To prepare for and facilitate this change, EirGrid must make the electricity grid more resilient and increase flexibility. 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 and overhead lines (referred to in this document as 'circuits'), and substations.

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 grid infrastructure in the Southern Region.

How are we planning for the future?

In the energy sector, we are exploring how we best meet society's needs for energy security while taking positive action to help decarbonise our power supply. In 2023, EirGrid published an update to Shaping Our Electricity Future (SOEF) which was first published in November 2021.

SOEF is a detailed roadmap that profiles the work which needs to be carried out to transform network infrastructure planning, public and industry engagement, electricity system operation and electricity markets, to support the government's climate targets.

Supplementing that at a national level is the 5-year Grid Implementation Plan, which is subject to Strategic Environmental Assessment (SEA), and the annual Transmission Development Plan (TDP), which is accompanied by an Environmental Appraisal Report (EAR).

The Grid Implementation Plan, the TDP and Shaping Our Electricity Future each provide a different level of scale and detail. You can read all of our latest publications on our website.

This is outlined in further detail in Sections 2.1 and 2.2 of this document and outlined in Figure 1.

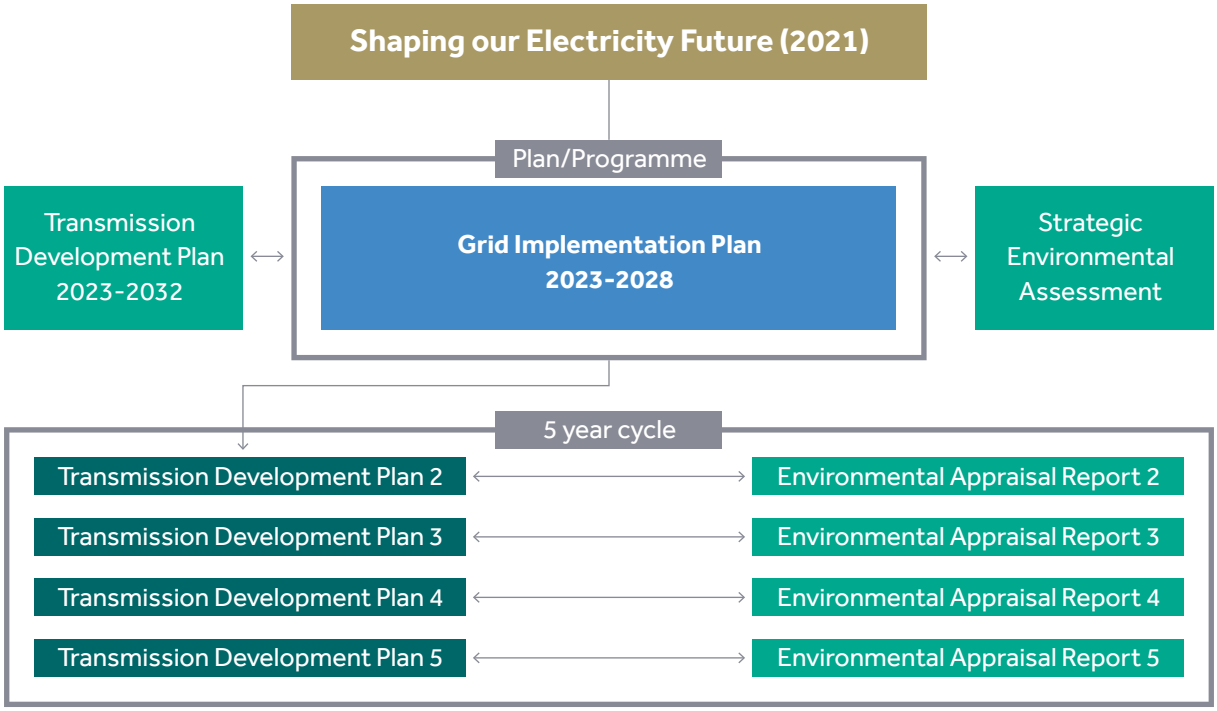


Figure 1: EirGrid hierarchy of plans

1.3 About this Strategic Framework Document

This Strategic Framework Document allows EirGrid's current programme of grid development projects to be understood in a regional context, showing the interdependencies of the projects, challenges within the Region, and how grid development is part of the economic development of the Region.

It explains how the electricity transmission system in the Southern Region 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.

It should be noted that in the future, circumstances may change, and additional projects may be required. At the time of writing, the listed projects in this document are all the projects in the Southern Region that EirGrid are investigating or planning.

The Southern Regional Assembly area (see Figure 2) is split into three sub-regions called Strategic Planning Areas:

- **Mid-West Region:** Clare, Limerick, and Tipperary*;
- **South East Region:** Carlow, Kilkenny, Waterford, Wexford and Tipperary*; and
- **South West Region:** Cork and Kerry.

*Tipperary is located within the Mid-West and South East Strategic Planning Areas.

A number of grid infrastructure projects are planned in the Southern Region over the next number of years. These comprise both new circuits and substations, as well as upgrades and refurbishments of existing substations and circuits. Collectively, for convenience, this document refers to these various projects as 'The Southern Regional Programme' or simply 'the Regional Programme'.

Together, the Regional Programme will contribute to an improved and upgraded network in the Southern Region for all electricity users in Ireland, responding to increasing demand for electricity and facilitating a transition to a low carbon society based on renewable energy sources.

The Southern Regional Programme consists of the following:

- 3 No. linear circuit projects;
- 18 No. existing circuit upgrade projects; and
- 34 No. substation projects.

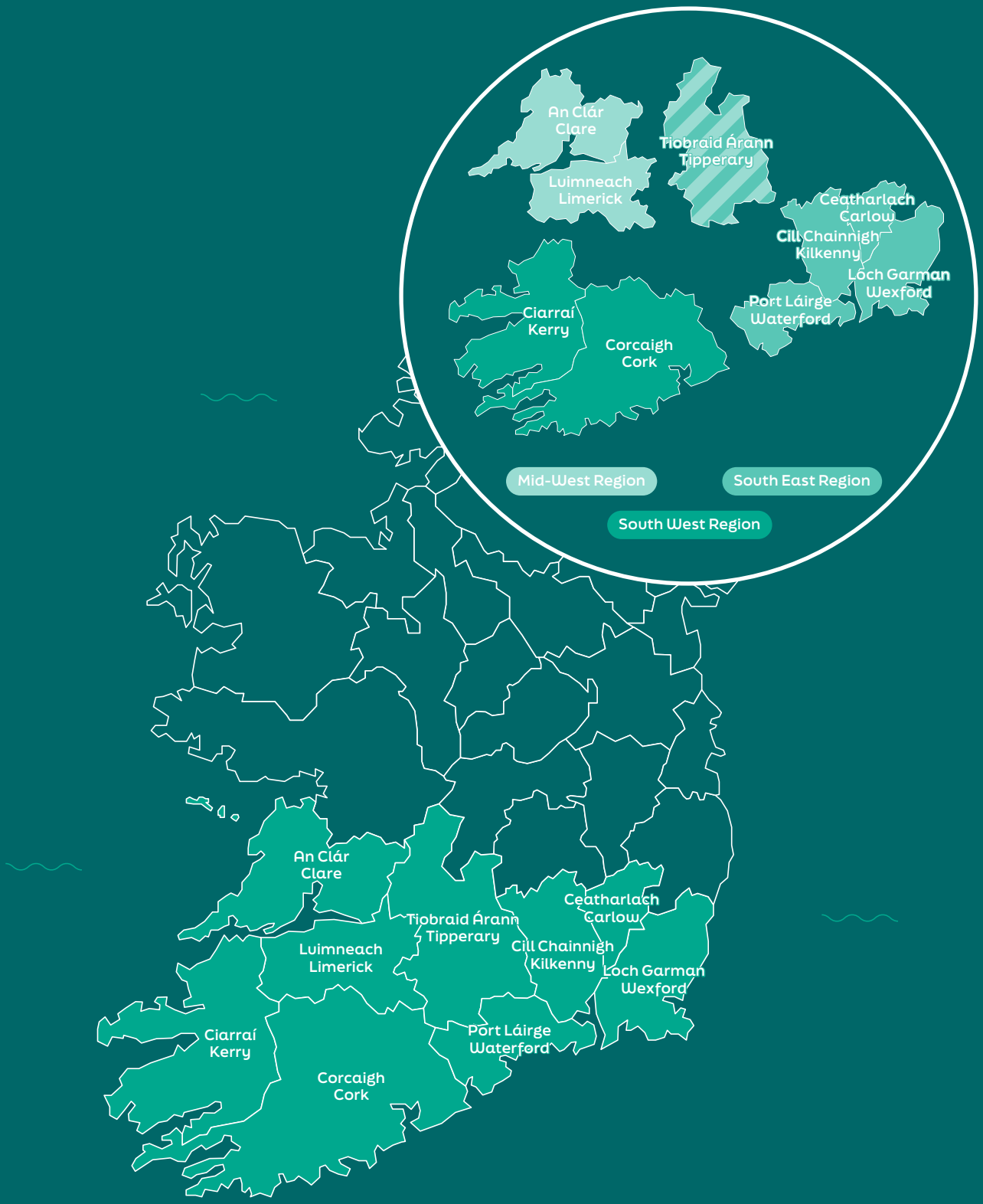


Figure 2: Map of the Southern Regional Assembly Area and its sub-regions

1.4 About the Southern Region

The transmission system can be seen as comparable to the motorway and national road network. Just as motorways and dual carriageways allow for movement of significant volumes of vehicles, the electricity transmission system allows for bulk power to be transferred most efficiently. Like the road network, the transmission system can be thought of as one fully interlinked network which is composed of individual sections.

At EirGrid, we look at individual sections of the transmission system and also the wider network to assess what is required and where. Our Framework for Grid Development shows the step-by-step way by which we consider and progress our various projects, undertaking consultation and engagement at key points throughout the project development process.

The two 'motorways' of the transmission system are the two 400 kV circuits that cross the country from Moneypoint Power Station on the north side of the Shannon Estuary in Co. Clare. They terminate at substation nodes in the Greater Dublin Area, one in Woodland, near Batterstown, Co. Meath and the other in Dunstown, near Kilcullen, Co. Kildare. These two 400 kV circuits bring electricity from the Western side of the country where it is generated to where it is needed (known as Demand Centres) along their routes, and especially in the Greater Dublin Area.

'Dual carriageways' and 'regional roads' (the 220 kV and 110 kV circuits) across the country to every county and take the electricity into cities and larger towns, via substation nodes ('junctions'); from these nodes, other lower voltage circuits ('local roads') on the ESB Networks Distribution System deliver electricity to homes, farms and businesses.

The region has a wide variety of existing and potential generation sources and system service providers including onshore and offshore wind, solar, hydro, storage (including pumped storage and battery energy storage), synchronous condensers, biomass, waste, diesel, and gas. The Region, in particular Cork and Kerry, is becoming a renewable hub with a significant portion of Ireland's renewables generated in this area as well as significant portfolio of new generation projects planned. EirGrid will develop the Grid in a planned to manner to meet to facilitate this renewables generation.

The existing transmission network is relatively dense around large electricity demand centres of the Limerick and Cork urban areas, as well as the key generators at Moneypoint, Co. Clare and Great Island, Co. Wexford and Aghada Co Cork. There are two existing 400 kV OHLs terminating at Moneypoint. There is also significant 110 kV and 220 kV infrastructure in the Region. More rural parts of the Region contain less connections.

There are three drivers that underpin the need for the Regional Programme, namely:

Increased demand inside and outside the region

The Government's Housing for All policy, the electrification of heat and transport, and the AFIR regulation (Alternative fuel Infrastructure directive) is resulting in a step change in electricity demand. The National Planning Framework has set out a target of at least 50% population growth each for the cities of Waterford, Limerick, and Cork by 2040[1]. An expanding population and a growing, modern economy requires a similar expansion of the electricity infrastructure. This becomes even more critical with the ever-increasing reliance of our modern lives on a reliable electricity system.

Integration of generation

There are significant volumes of renewable generation in the southern, south-western and western parts of the Region. These areas have relatively low levels of electricity demand and as a result the renewable electricity that is generated requires transmission infrastructure to bring it from these areas to areas with high demand for electricity. Future offshore renewables will also require a stronger transmission grid than currently exists to carry the anticipated levels of generation.

Age and condition of existing assets

The grid is regularly inspected and maintained to ensure its efficient and safe operation. These inspections will identify when it is necessary to replace parts of the grid network due to its age or condition. Part of the Regional Programme includes the replacement or refurbishment of those parts that are approaching the end of their working life.

The current Southern Regional Assembly Regional Spatial & Economic Strategy[2] states:

"It is an objective to support the development of a safe, secure and reliable supply of electricity and to support and facilitate the development of enhanced electricity networks and facilitate new transmission infrastructure projects that might be brought forward in the lifetime of this plan under EirGrid's (2017) Grid Development Strategy (subject to appropriate environmental assessment and the planning process) to serve the existing and future needs of the Region and strengthen all-island energy infrastructure and interconnection capacity."

1 https://cdn.npf.ie/wp-content/uploads/National-Planning-Framework-First-Revision-April-2025-1.pdf
2 https://www.southernassembly.ie/regional-planning/rses

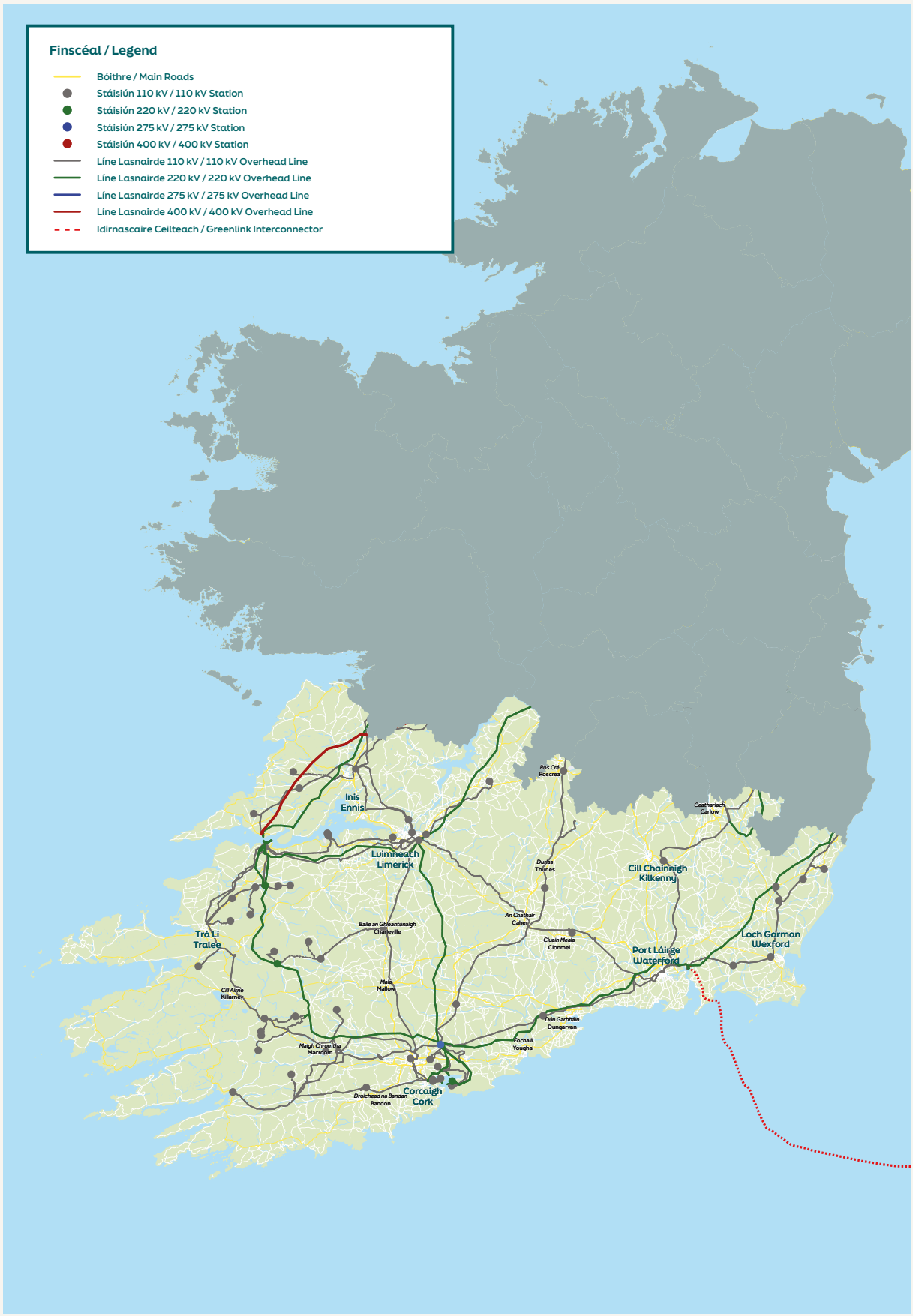


Figure 3: Existing transmission network and interconnectors of the Southern Region

1.5 EirGrid's approach to grid development

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

EirGrid develops the grid to:

- Replace or upgrade existing infrastructure.
- Respond to changes to the demand for electricity.
- Connect with electricity grids in other countries.
- Accommodate new ways to generate electricity.
- Deal with different locations where it can be generated.

As the state-owned independent electricity Transmission System Operator (TSO), EirGrid is legally obligated to offer terms and enter into agreements, where appropriate and in accordance with regulatory direction, with those using and seeking to use the transmission system. Upon acceptance of connection offers by prospective network generators and demand users, EirGrid must develop the electricity transmission network to ensure it is suitable for those connections.

When EirGrid develops the grid, it has due regard for the natural, built, and human 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.
3. Optimise the existing grid to 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 subsequent energisation of the grid infrastructure project to address the need. This is known as EirGrid's Framework for Grid Development.

You can read about this process along with our approach to public engagement in this document here: Have Your Say.

Figure 4: EirGrid's Framework for Grid Development

1.6 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 Regional 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 national, regional, and local statements, policies, and plans.

These include:

- The Climate Action Plan 2021 – Securing Our Future (updated 2024).
- Project Ireland 2040 – National Planning Framework.
- Housing for All – A New Housing Plan for Ireland.
- Regulation on the deployment of alternative fuels Infrastructure (EU 2023/1804)[3].
- Southern Regional Assembly Regional Spatial and Economic Strategy.
- Carlow County Development Plan 2022–2028.
- Kilkenny City and County Development Plan 2021–2027.
- Wexford County Development Plan 2022–2028.
- Waterford City & County Development Plan 2022–2028.
- Tipperary County Development Plan 2022–2028.
- Clare County Development Plan 2023–2029.
- Limerick Development Plan 2022–2028.
- Kerry County Development Plan 2022–2028.
- Cork County Development Plan 2022–2028
- Cork City Development Plan 2022–2028.
- The South Coast Designated Maritime Area Plan for Offshore Renewable Energy (SC-DMAP).

The above documents are uniformly supportive of grid development, subject to social and environmental considerations. The Regional Programme is considered to be consistent with strategic policies of proper planning and sustainable development.

EirGrid is committed to working in partnership with the Southern Regional Assembly, the Local Authorities of the Region, and other Statutory and non-Statutory stakeholders, to implement policies and objectives relating to sustainable grid development.

[3] This Directive supports the transition to cleaner transport. It sets mandatory national targets for recharging and refuelling stations for various transport modes.

1.7 The Southern Region Programme Area

As discussed in more detail in Part B of this Strategic Framework document, the Southern Region Programme Area is focused upon the provision of both new and upgraded transmission infrastructure in the Region.

While the Southern Region Programme has a number of clearly defined projects, there are other works throughout Ireland that could affect the Southern Region. The Irish national grid has a inter-connected or 'meshed' nature and there is a wider programme of national grid infrastructure development being undertaken by EirGrid, including interconnection into Great Britain, and to mainland Europe (under construction).

The Regional Programme includes projects right across the Southern Region. Some examples include:

- **Laois – Kilkenny Grid Reinforcement**
  Currently in the construction phase.
- **Cross Shannon 400 kV Cable**
  Currently in the construction phase.
- **Celtic Interconnector**
  Currently in the construction phase.
- **Powering Up Offshore South Coast**
  Project scoping and Pre-Consenting phase.

1.8 Existing environment

As explained in Section 3.4 (Our Approach to Environment), environmental considerations will inform the progression of all EirGrid projects forming the Southern Region Programme. This section provides a summary of the natural environmental constraints for the key areas of biodiversity, cultural heritage, and surface water.
The Southern Region is a wide area, both onshore and offshore, with numerous natural environmental features, including designated environmental sites, one World Heritage site and potential site, and National Monuments, and many rivers and waterbodies. The text below identifies some of the key features of the Region and sets out information on how a range of environmental topics, including those relating to people and communities, are typically considered.

1.8.1 Biodiversity

The Southern Region has a rich diversity of habitat types which is reflected in its many designated sites, particularly along the coastline, rivers and waterbodies, and mountains. Areas such as the Rivers Shannon, Slaney, Blackwater, Nore, and Barrow, and also Mullaghareirk, Mish, Killarney, Slivermines, and extensive marine areas are all examples of the designations. Three of the eight national parks in Ireland are located in the Southern Region – Killarney, Burren, and Páirc Náisiúnta na Mara. Woodland cover in the Region is on average 11.8% of landcover[4] compared to a national average of 11.2%. The counties within the Region have a large variation: Clare has 18.5% (third highest in the nation), while Wexford has 6.9%.

[4] https://www.teagasc.ie/news—events/daily/forestry/irelands-forests—-statistics-2023.php

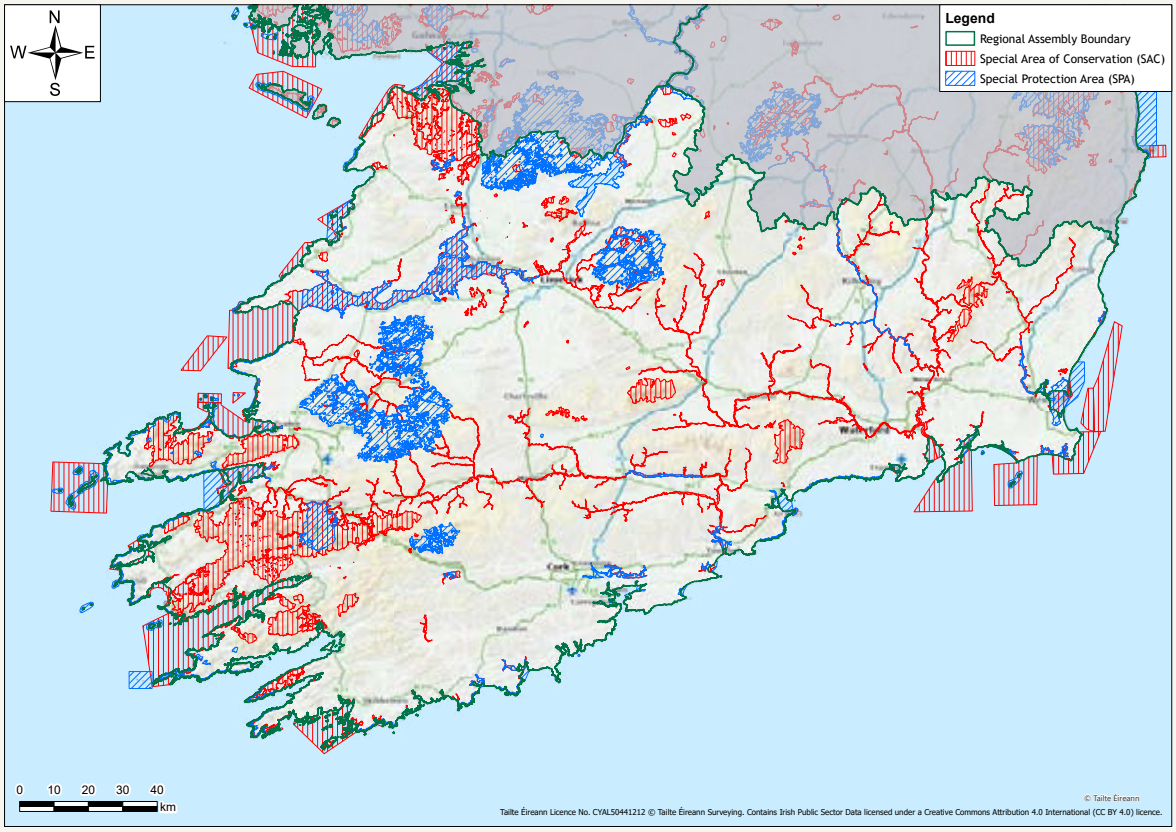


Figure 5: SPAs and SACs within the Southern Region

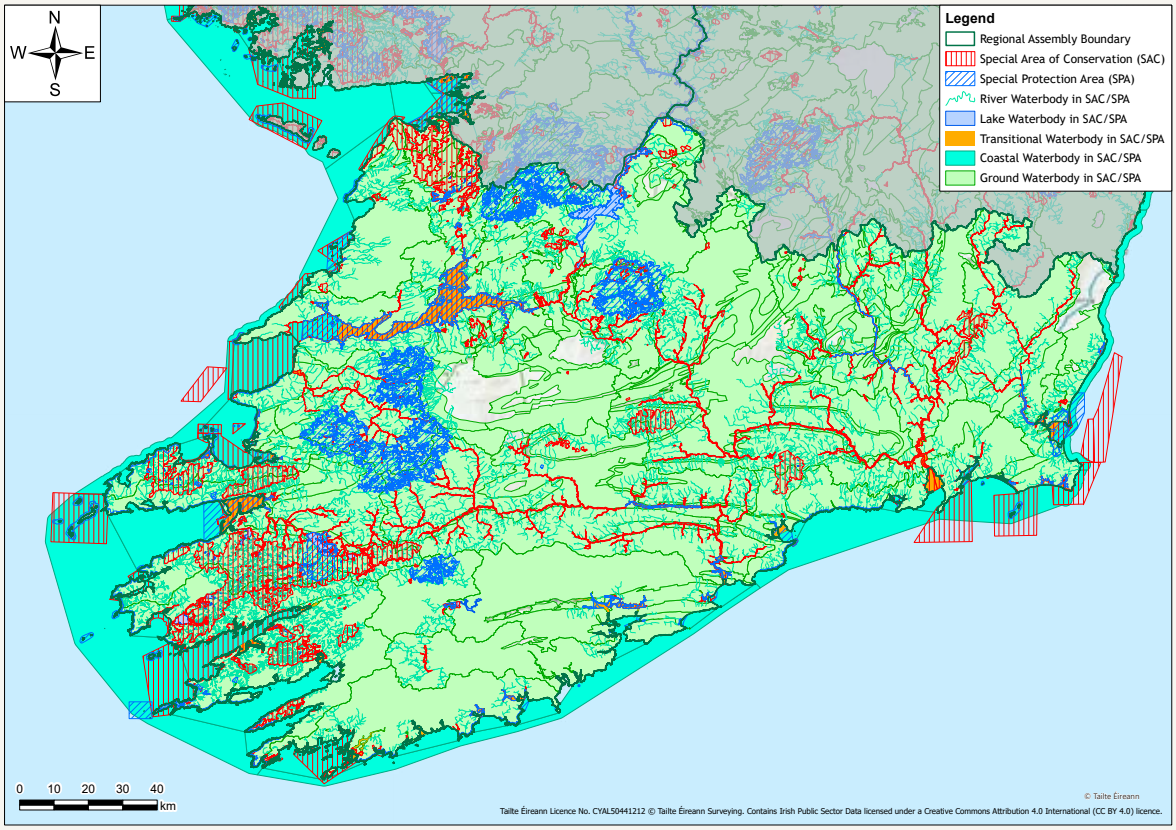


Figure 6: Biodiversity constraints within the Southern Region

1.8.2 Cultural heritage

The archaeological, architectural heritage, and cultural heritage features of the area are rich – from the earliest Irish settlers to the modern industrial heritage. There are three World Heritage sites on the island of Ireland, and a further three are on the tentative list[5]. One site and two tentative sites are the Region – Sceilg Mhichíl (off the coast of County Kerry) is a recognised site and the Royal Sites of Ireland (which includes the Rock of Cashel, County Tipperary) and the Transatlantic Cable Ensemble (County Kerry) are on the tentative list.

The Rock of Cashel was the traditional seat of the kings of Munster and contains a prized collection of Celtic art and medieval architecture. The recorded history of the site goes back to the 5th century. The Transatlantic Cable Ensemble includes the Irish site of the world's first trans-Atlantic telegraph cable. The first transatlantic telegram was made in 1858 from the Slate Yard in Valentia to Newfoundland.

Nationally there are over 1,000 individual national monuments at 760 locations in state care[6]. Of these locations, 357 are in the Southern Region. The locations range from Michael Collins's birthplace at Kilkerranmore, County Cork, to Bunratty Castle, to Dunloe Ogham Stones.

[5] https://whc.unesco.org/en/statesparties/ie
[6] https://www.archaeology.ie/national-monuments/

1.8.3 Surface water

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.

The key waterbodies in the Region are:

- **Rivers**
  Shannon, Lee, Nore, Suir, Blackwater, Maigue, Feale, Flesk, Roughty, Ilen, Bandon, Avoca, and Barrow.
- **Loughs**
  Leane; Currane; Gougane Barra, Derg, Carrigadrohid.

1.8.4 People and communities (socio-economics)

The Southern Region covers 42% of Irish state territory[7] and in 2016, the population was 1.7 million in 2022, 33% of the total population[8] and has three of the country's five cities – Cork, Limerick, and Waterford. It is projected that the Region's population will grow up to 1.93 million by 2031[9].

The Region is a key transport hub for the island with two international airports (Shannon and Cork) and all the major seaports for the island outside of Dublin (Limerick-Foynes, Cork, Waterford, Rosslare Europort).

There is a broad mix of settlements and communities from the Cork, Limerick, Kilkenny, and Waterford metropolitan areas, to large rural areas, towns and villages, and islands throughout the Region. The Region forms part of all three of Failte Ireland regions: Wild Atlantic Way; Hidden Heartlands, and Ancient East[10].

The Southern Region includes the key towns of Ennis, Carlow, Tralee, Wexford, Clonmel, Killarney, Mallow, Nenagh, Thurles, Newcastle West, Clonakilty, Dungarvan, and Gorey. In addition, there are many smaller towns, villages, and rural settlements.

The Region also is home to a number of Gaeltacht areas, Múscraí and Oileán Chléire (Cork); Corca Dhuibhne and Uíbh Ráthach (Kerry); Rinn Ua gCuanach and an tSean Phobal (Waterford).

The Region itself offers strong employment through a mixture of multinationals (e.g., large multinationals headquartered in Cork and Limerick, and many other technology, manufacturing, and pharmaceuticals) as well as local employers (e.g., agri-businesses). Agriculture and equestrian/bloodstock businesses are strong throughout the Region with significant stud operations throughout and several racecourses.

The Region also supports a strong tourism economy with attractions such as the Cliffs of Moher, King John's Castle, Lakes of Killarney, Fota Wildlife Park, Blarney Castle, The Rock of Cashel, Copper Coast Geopark, Waterford Crystal, Kilkenny Castle, Carlow Garden Trail, Hook Lighthouse and the Dunbrody Famine Ship[11].

[7] https://www.southernassembly.ie/regional-planning/rses
[8] https://www.cso.ie/en/releasesandpublications/ep/p-cpsr/censusofpopulation2022-summaryresults/
[9] https://www.southernassembly.ie/regional-planning/rses
[10] https://www.failteireland.ie/regionalstrategies.aspx
[11] https://www.southernassembly.ie/regional-planning/rses

1.8.5 Offshore Environment

The ports in the Southern Region demonstrate the strong maritime connection of the Region to the sea, operating key facilities for import and export for the State. The largest ports outside of Dublin are located in the Southern Region – Rosslare, Cork Harbour (Cork City and Ringaskiddy), Waterford, and Shannon Foynes. Each of which have expansion plans for increases in transportation, offshore renewables, trade, and logistics. Smaller harbours for amenity and fisheries are located along the coast and include Wexford, Kinsale, Crosshaven, Schull, Baltimore, Skibbereen, and others.

The fishing grounds of the Southern Region are highly productive and include mackerel, shellfish, hake, blue whiting and crustaceans such as European lobster. The fishing industry is a key employer in the Region, through offshore activities and onshore processing of the catch for Irish and global consumers.

The tourism and leisure industry in the Southern Region is deeply intertwined with the sea and coastline. The availability of boating trips to places such as Skellig Michael or for whale and dolphin watching show the deep connection to the sea. Ireland's first Marine National Park, Páirc Náisiúnta na Mara, which includes 70,000 acres of land and sea, is located in the Southern Region. The many beaches in the Southern Region are more than summertime destinations but offer year-round leisure activities through wild swimming, athletic events, walking, water sports, and enjoyment of the views.

Further off the coast, oil and gas exploration/ extraction has been ongoing since the 1970s. Kinsale Head Gas Field, about 50 km off the coast of County Cork, has been in operation since 1978. Future offshore oil and gas exploration in Ireland has been banned by legislation since 2021 but existing facilities will be allowed to continue operation. There are no commercial marine aggregate extraction operations in the Region.

The offshore environment of the Southern Region is a rich and diverse area and it is continuing to evolve. New developments in the Region include new interconnectors such as Celtic and Greenlink, the major expansion of new offshore renewable energy such as EirGrid's Powering Up Offshore South Coast (see pages 36 to 39 for further details), and the associated development of the ports in the area. These new developments will expand economic development in the Region and help to decarbonise the National Grid.

Part 2: Project Delivery

2.1 The planned projects

There are three categories of projects in the Regional Programme:

- **New infrastructure projects: 6% of the Regional Programme**
  These are newly constructed circuits (overhead lines, underground cables, submarine cables) or substations.
- **Innovation Projects: 7% of the Regional Programme**
  These are 'non-wire' technological solutions to challenges (e.g., Dynamic line rating[12] or Power flow controllers[13]).
- **Optimisation Projects: 87% of the Regional Programme**
  These are improvements of existing assets (e.g., thermal uprate and voltage upgrade of an existing circuit or works to an existing substation).

The Southern Regional Programme consists of he following:

- 3 No. linear circuit projects;
- 18 No. existing circuit upgrade projects; and
- 34 No. substation projects.

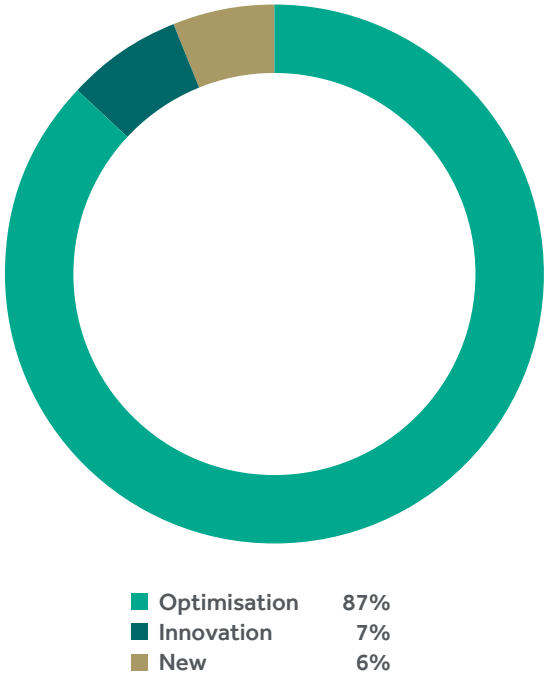


Figure 7: Breakdown of project type of the Southern Regional Programme

It should be noted that in the future, circumstances may change, and additional projects may be required. At the time of writing, the listed projects in this document are all the projects in the Southern Region that EirGrid is investigating or planning. Should additional projects arise, these will be consulted on as outlined in Part C of this document; they will appear in EirGrid's annual Transmission Development Plans and other relevant documents.

[12] Enables a more efficient use of the power carrying capacity of an overhead line while enhancing its safe operation.
[13] Substation infrastructure connected with circuits to provide control of the circuit's power flow.

The reinforcement of regional grid infrastructure will require the temporary switching off (known as 'outage') of existing assets for periods of time to allow work to take place. To aid this EirGrid has launched an initiative to review and transform how outages of the transmission system are planned and granted (the Outage Transformation Project). This initiative will include a review of outage requirements and durations during construction. This process will seek to minimise the requirement for outages during construction where possible. EirGrid and ESB Networks (ESBN) will continue to work closely to deliver the outage programme and in turn implement the grid delivery programme as effectively and efficiently as possible in all areas of the network requiring reinforcement.

Powering Up Offshore South Coast is not included the numerical breakdown presented above. Powering Up Offshore South Coast is a programme to build the new transmission grid infrastructure necessary to bring power generated by offshore windfarms from Ireland's south coast into our national grid. As part of the government-led approach to the delivery of offshore wind, significant amounts of electricity are to be supplied from wind farms in the sea off Ireland's south coast – enough to power almost one million homes with clean energy. While EirGrid is not responsible for generating electricity or building windfarms, we are responsible for connecting electricity generation infrastructure, such as offshore and onshore windfarms, into our national electricity grid. EirGrid will be the asset owner of the offshore transmission grid and related onshore infrastructure.

Further details on Powering Up Offshore South Coast are provided in Section 2.3 below and at www.eirgrid.ie/offshore.

2.2 Scope of the Southern Regional Programme

It is intended that the Regional Programme will be delivered as an integrated programme of works to transform the Southern Region's electricity transmission network.

EirGrid is fully committed to the Government's 2030 targets for Ireland's renewable energy 2030. To achieve this, we are constantly examining the best way of delivering the required grid development projects. Sometimes this will be as one-off projects and other times this will be through a programme of works (such as Powering Up Offshore Southern Coast).

This section of the report outlines the individual projects that are required in the Southern Region with further information on programmes of projects and how project come together in the wider network.

EirGrid has sought to optimise and innovate as far as possible in order to maximise the use of existing assets and new technologies. The construction of new projects forms roughly 5% of the Regional Programme as seen in Figure 9, with the remaining 95% improving existing assets.

Figure 8: Proposed Projects of the Southern Regional Programme (source: EirGrid)

Table 1 below provides a summary of the Regional Programme and Figure 9 shows the proposed location of the projects. However, the nature and/or location of certain projects are not yet known as further design, surveys, consultation, and assessment are required before the exact project details are identified.

Details on Powering Up Offshore South Coast are provided in Section 2.3.

Table 1: Projects making up the Southern Regional Programme

	Project name		Description	County*
New Infrastructure	CP0585	Laois – Kilkenny Reinforcement Project	New 400 kV substation looped into the existing Dunstown – Moneypoint 400 kV circuit, and new and upgraded overhead lines and associated infrastructure linking the new 400 kV substation at Coolnabacky, Co. Laois, the new 110 kV substation at Ballyragget, Co. Kilkenny and the existing 110 kV substation in Kilkenny City.	Kilkenny (as well as Laois)
	CP0970	Cross Shannon 400 kV Cable	A 400 kV cable crossing of the Shannon Estuary between the electricity generating station at ESB Moneypoint and Kilpaddoge (near Tarbert, County Kerry).	Clare, Kerry
	CP1215 /Reference Number PCI 1.6	Celtic Interconnector	A 700 MW high-voltage direct current (HVDC) submarine power cable between France and Ireland, with onshore cable, substation works at Knockraha, and a convertor station to connect to the Irish grid.	Cork

Optimisation

Project name		Description	County*
CP0624	Killonan 220 kV Station Refurbishment – Killonan Station Works	Substation refurbishment/ upgrade	Limerick
CP0741	Trabeg 110 kV Station – Uprate 2 x 110 kV Transformer Bays and Control Room Extension DSO	Substation refurbishment/ upgrade	Cork
CP0796	Knockraha Station and Installation of Additional Couplers	Substation refurbishment/ upgrade	Cork
CP0866	Great Island – Kellis 220 kV Line Uprate	Overhead line refurbishment/ upgrade	Carlow, Wexford
CP0873	Dunstown – Moneypoint 400 kV Refurbishment	Overhead line refurbishment/ upgrade	Clare, Tipperary (and counties in the E&M Region)
CP0901	Kilbarry – Knockraha 110 kV No 2 Line Refurbishment	Overhead line refurbishment/ upgrade	Cork
CP0917	Prospect Tarbert 220 kV Cable Replacement Project	Underground cable refurbishment/upgrade	Clare, Kerry
CP0949	Kilnap 110 kV GIS Station	Substation refurbishment/ upgrade	Cork
CP0967	Moneypoint 400 kV Series Capacitor	Substation refurbishment/ upgrade	Clare
CP0973	Knockraha Short Circuit Rating Mitigation	Substation refurbishment/ upgrade	Cork
CP0983	Point on Wave Controller for Glanagow 220 kV Station	Substation refurbishment/ upgrade	Cork
CP1004	Killonan – Limerick No 1 110 kV Uprate	Overhead line refurbishment/ upgrade	Limerick
CP1092	New 400 kV Strategic Spare Transformer	Substation new asset	Clare
CP1096	Transformer Protection Upgrade, 6 Stations	Substation refurbishment/ upgrade	Tipperary, Cork (as well as Sligo, Mayo, Leitrim, Galway, Cork)
CP1111	Ballydine, Cahir and Connected Stations 110 kV Protection Upgrade	Substation refurbishment/ upgrade	Tipperary
CP1112	Limerick and Connected Stations 110 kV Protection Upgrade	Substation refurbishment/ upgrade	Limerick
CP1116	Tipperary, Cahir and Connected Stations 110 kV Protection Upgrade	Substation refurbishment/ upgrade	Tipperary
CP1137	Carlow, Kellis 110 kV Protection Upgrade	Substation refurbishment/ upgrade	Carlow

Optimisation

Project name		Description	County*
CP1140	Athy, Carlow and Connected Stations 110 kV Protection Upgrade	Substation refurbishment/ upgrade	Carlow (as well as Kildare, Wicklow)
CP1141	Kellis Station 220 kV and 110 kV Protection Upgrade	Substation refurbishment/ upgrade	Carlow
CP1159	Cullenagh and Connected Stations Protection Upgrade	Substation refurbishment/ upgrade	Waterford
CP1160	Coolroe, Inniscarra and Connected Stations Protection Upgrade	Substation refurbishment/ upgrade	Cork
CP1163	Butlerstown, Killoteran and Waterford 110 kV Protection Upgrade	Substation refurbishment/ upgrade	Waterford
CP1164	West Cork 110 kV Protection Upgrade	Substation refurbishment/ upgrade	Cork
CP1172	Crane – Wexford 110 kV Line Uprate	Overhead line refurbishment/ upgrade	Wexford
CP1177	Whitegate 110 kV Station Refurbishment Project	Substation refurbishment/ upgrade	Cork
CP1182	Transformer Restoration Project	Substation refurbishment/ upgrade	Carlow, Cork, Waterford
CP1186	Agannygal, Ennis and Connected Stations 110 kV Protection Upgrade	Substation refurbishment/ upgrade	Clare
CP1207	Lisheen – Thurles 110 kV Protection Upgrade	Substation refurbishment/ upgrade	Tipperary
CP1209	Brown Boveri Circuit Breaker Replacements	Substation refurbishment/ upgrade	Cork, Clare, Limerick
CP1211	Bandon Dunmanway 110 kV Circuit Thermal Capacity	Overhead line refurbishment/ upgrade	Cork
CP1212	Bandon Raffeen 110 kV Circuit Thermal Capacity	Overhead line refurbishment/ upgrade	Cork
CP1222	Knockraha 220 kV Transformer Replacement	Substation refurbishment/ upgrade	Cork
CP1223	Bandon 110 kV Busbar Rating Needs	Substation refurbishment/ upgrade	Cork
CP1227	Cashla and Connected Stations 220 kV and 110 kV Protection Upgrade	Substation refurbishment/ upgrade	Clare
CP1242	Great Island 220-110 kV Transformer Upgrades	Substation refurbishment/ upgrade	Wexford
CP1285	Barnahely – Raffeen No 2 110 kV Line	Overhead line refurbishment/ upgrade	Cork
CP1291	Carlow 110 kV Station Busbar Thermal Capacity Need	Substation refurbishment/ upgrade	Carlow

	Project name		Description	County*
Optimisation	CP1300	Climate Change Adaptation Measures	Substation refurbishment/ upgrade	Kerry, Cork, Waterford
	CP1310	Agannygal-Ennis Line Refurbishment	Overhead line refurbishment/ upgrade	Clare
	CP1312	Athy – Carlow 110 kV Circuit 1	Overhead line refurbishment/ upgrade	Carlow (as well as Kildare)
	CP1320	Barrymore Cahir Knockraha 110kV Line Uprate	Overhead line refurbishment/ upgrade	Cork, Tipperary
	CP1389	Limerick – Rathkeale Line Uprate	Overhead line refurbishment/ upgrade	Limerick
	CP1412	Knockraha 220 kV Transformer Replacement (T2102)	Substation refurbishment/ upgrade	Cork
	CP1434	Drumline 110 kV Station Busbar Thermal Uprate	Substation refurbishment/ upgrade	Clare
	CP1449	Midleton 110kV Transformer Uprate and Station Works DSO	Substation refurbishment/ upgrade	Cork
	CP1490	Barrymore 110 kV Busbar and New 110 38 Transformer	Substation refurbishment/ upgrade	Cork
	CP1495	Lodgewood-Great Island Line Uprate	Overhead line refurbishment/ upgrade	Cork, Wexford
Innovation	CP1324	Clashavoon – Knockraha or Cullenagh – Knockraha 220 kV Lines (PFC)	Power Flow Controllers	Cork
	CP1436	Ardnacrusha Ennis 110 kV Circuit DLR and Related Works	Dynamic Line Rating	Clare
	CP1435	Drumline Ennis 110kV Circuit DLR and Related Works	Dynamic Line Rating	Clare
	CP1450	Ardnacrusha Drumline 110kV Thermal Capacity Needs	Dynamic Line Rating	Clare

*The Counties are provided to indicate the location of the projects. As identified above, the exact locations of some of the Linear Projects are not fully confirmed, and therefore the areas could change. Projects correct as of 1st September 2025 and are subject to change.

2.3 New infrastructure projects

The following new infrastructure projects seek to both expand and reinforce the grid in the Region and are at various stages of development in the EirGrid grid development framework:

- **Laois – Kilkenny Reinforcement Project.**
- **Cross Shannon 400 kV Cable.**
- **Celtic Interconnector.**

2.3.1 Laois – Kilkenny grid reinforcement

The grid in Kilkenny and Laois needs to be upgraded to reduce risks to the quality and security of the power supply in the immediate area, as well as in the adjacent counties of Carlow and Kildare.

The upgrade will help meet the increased demand for electricity in the area. Projected growth in electricity demand in the area will cause problems in the future if not addressed.

For the Laois Kilkenny Reinforcement Project, the infrastructure includes:

- A new 400/110 kV substation situated to the south-east of Portlaoise, at Coolnabacky. Two existing overhead lines will connect to this new substation: the 400 kV Moneypoint-Dunstown line (by means of additional double circuit overhead line and structures) and the 110 kV Athy-Portlaoise line (which will be diverted into the substation site).
- A new 110/38 kV substation located next to the existing 38 kV electricity substation at Ballyragget, Co Kilkenny.
- A new 110 kV line between these two new stations at Coolnabacky and Ballyragget.
- An upgrade for the existing Ballyragget-Kilkenny overhead line to become a 110 kV line.
- A modification to the existing Athy-Portlaoise 110 kV line and works in the Kilkenny substation.

The project will address the regional concerns on the grid. In particular, it ensures that the power system can meet the grid's technical standards.

This will allow the Region to compete for and retain businesses with employment potential.

The project was consented in 2014 and is significantly completed, with works at Ballyragget and Kilkenny substations completed in 2023. Construction of the Coolnabacky substation commenced in early 2024. At the time of writing, that portion of the new Coolnabacky to Ballyragget 110 kV circuit within County Kilkenny is nearing completion, whilst a significant portion of polesets and angle towers have been constructed on that portion of this new circuit in Co. Laois.

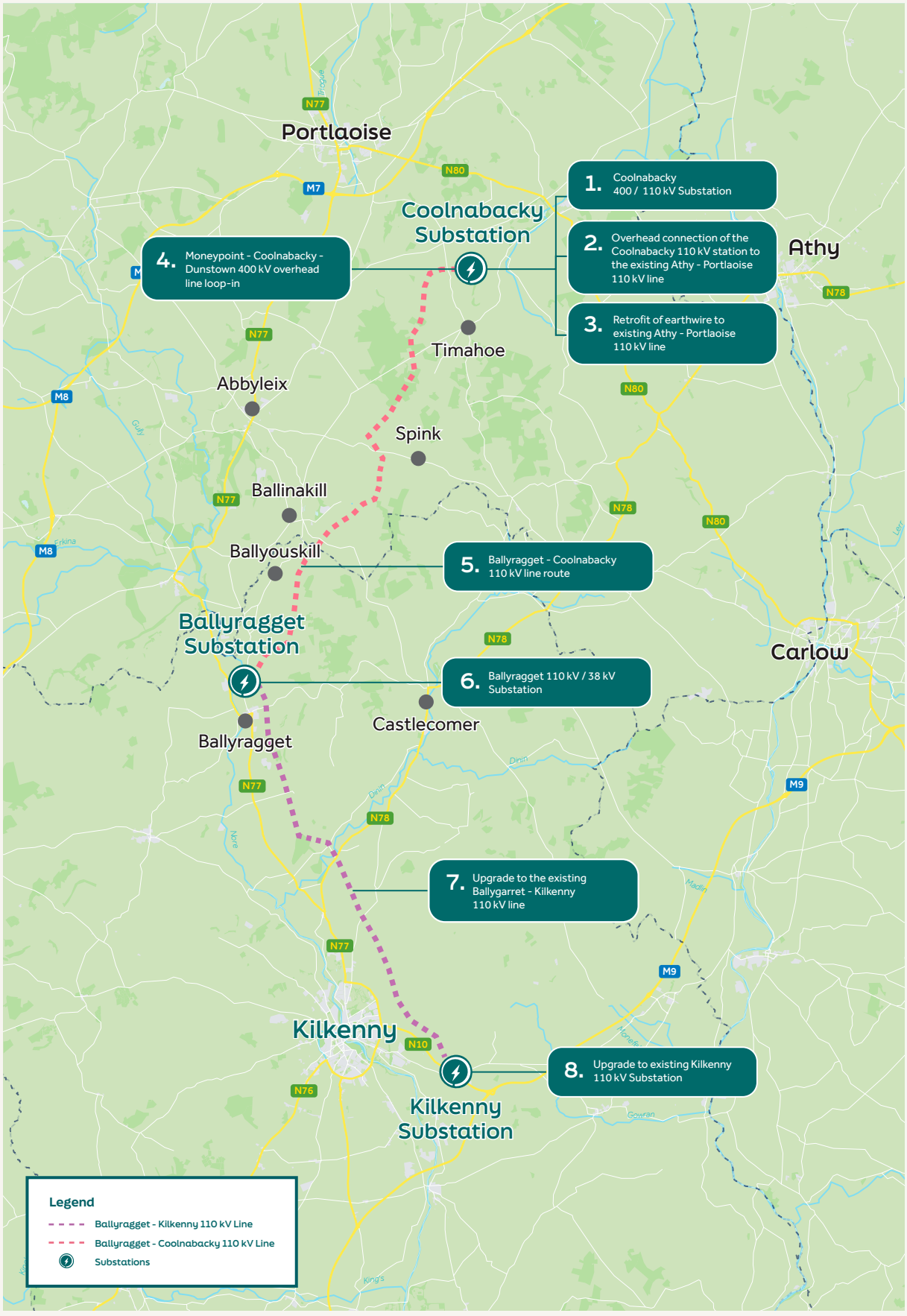


Figure 9: Map of the Laois Kilkenny Grid Reinforcement project (source: EirGrid)

2.3.2 Cross Shannon 400 kV cable

The Cross-Shannon Cable 400 kV Project involves the laying of a new 400 kV cable across the Shannon Estuary (in the seabed) between the Moneypoint 400 kV Electricity Substation in the townland of Carrowdotia South County Clare and Kilpaddoge 220/110 kV Electricity Substation in the townland of Kilpaddoge County Kerry. The connection at Moneypoint will be at the existing substation on ESB lands. The connection at Kilpaddoge requires an extension to the existing substation on ESB lands.

High levels of renewable generation are currently being integrated into the southwest of Ireland. At times of medium to high wind generation output, it is expected that the south west of Ireland will export the excess generation to areas where it is needed. This will create large power flows from the west and south-west towards the east coast.

To be able to facilitate this and to utilise the existing 400 kV network better, a system reinforcement across the Shannon is required, which is the Cross Shannon 400 kV cable circuit.

The project was approved by An Bord Pleanála (now called An Coimisiún Pleanála) in June 2021 and the Minister for Housing, Local Government and Heritage granted a Foreshore Licence for the project in June 2023. The project is now in the construction phase, with detailed design and related surveys and analysis ongoing.

Figure 10: Map of Cross Shannon 400 kV cable (source: EirGrid)

2.3.3 Celtic Interconnector

The Celtic Interconnector cable will enable the exchange of 700 MW of electricity between Ireland and France. Moving this electricity across a distance of 575km, with 500km of the cable running under the sea, this interconnector will have the capacity to supply electricity to 450,000 homes. The project is a key step on Ireland's energy journey to a low carbon energy future. It will make an important contribution to shoring up Ireland's security of electricity supply by providing a direct link to continental Europe.

When built, the Celtic Interconnector will bring many benefits for Ireland, France, and the EU. It will:

- Allow 700 MW megawatts of electricity to move between the countries (equal to power for around 450,000 homes).
- Make Ireland's electricity supply more secure, directly connecting the Irish grid to another EU member state.
- Help achieve our climate objectives and put downward pressure on the cost of electricity.

For this project the following circuits will be used to transport electricity:

- A HVAC circuit from the network connection point at Knockraha Substation to the converter station at Ballyadam, near Carrigtwohill.
- A HVDC land circuit from the converter station to the landfall at Claycastle Beach in Youghal.
- A HVDC submarine circuit under the sea.

The HVDC interconnector between Ireland and France will be about 575km long. This includes the subsea and the onshore cable to the converter station. The cables for the HVAC and HVDC are all underground.

Converter stations will be built in each country to change the electricity from HVDC to HVAC, and the other way around. After it is converted from HVDC to HVAC technology at the converter station, the electricity will be transferred to the existing substations in each country.

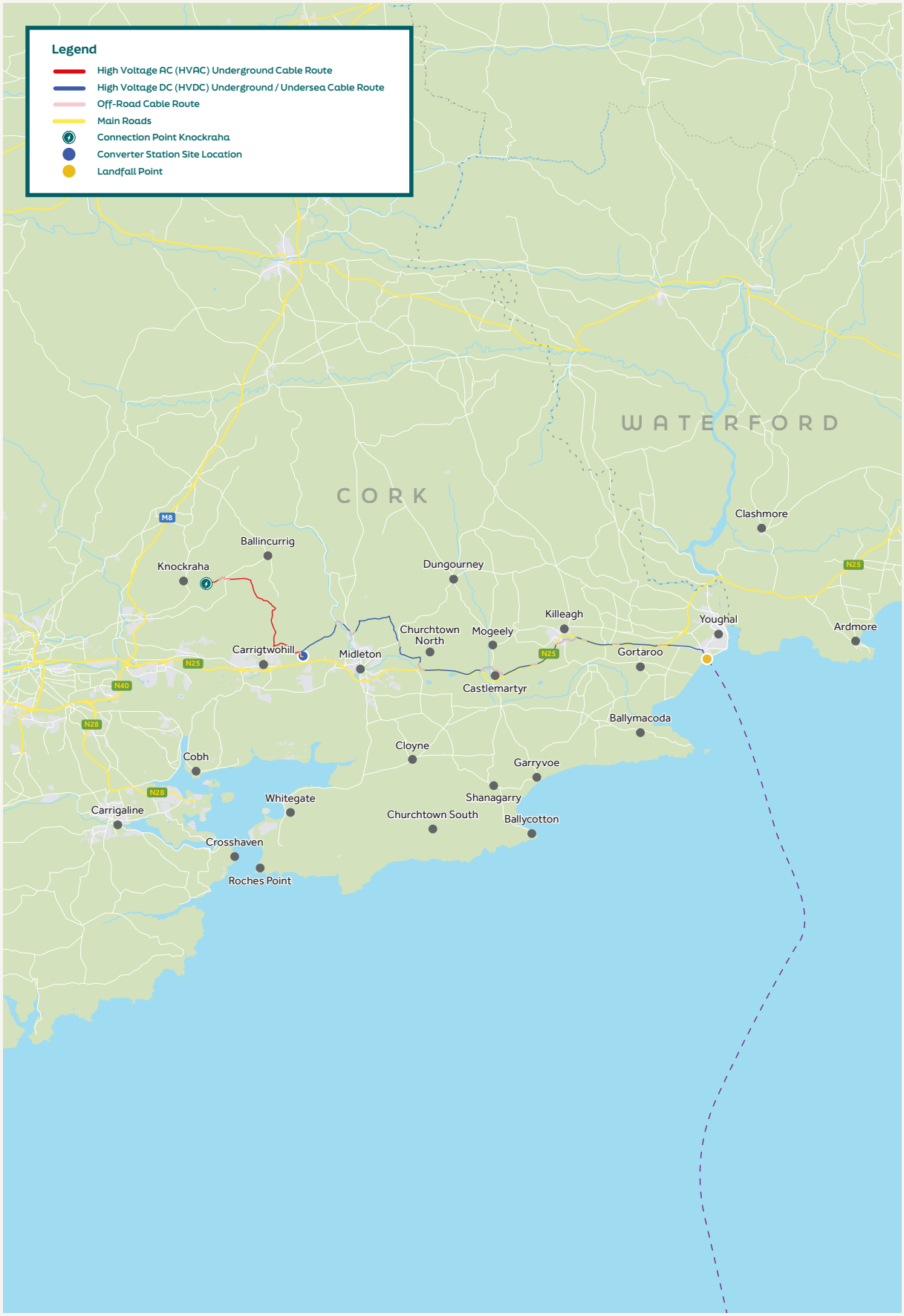


Figure 11: Map of the onshore section of the Celtic Interconnector (source: EirGrid)

Powering Up Offshore South Coast

The aim of the Powering Up Offshore – South Coast project is to build the new offshore and associated onshore transmission grid infrastructure needed to bring power generated by offshore windfarms into our national grid.

This project is a critical development on the journey to a renewable energy future in Ireland. The benefits include:

- **Sustainability**
  This project will enable homes across Ireland to use electricity generated from offshore renewable energy.
- **Security and reliability of supply**
  Building a more independent, resilient, and reliable electricity grid helps ensure that everyone has power when and where they need it.
- **Social and community**
  EirGrid's community benefit policy will directly support local communities in the areas that host the programme infrastructure.
- **Meet future needs**
  As our society and economy develops, the programme will help EirGrid to meet the growing demand for electricity, without increasing our carbon footprint.
- **Economic**
  This critical programme will help strengthen the economy across coastal regions, encouraging and supporting industry investment with accessibility to a strong electricity grid.

The main components of this project are two offshore substation platforms – to be located within the Maritime Area A, also known as Tonn Nua. The following will then be required in County Cork and in County Waterford/Wexford:

- Offshore transmission cables connecting offshore substations to landfall locations.
- New onshore substations.
- Connections between landfalls and new onshore substations by underground cables.
- Loop-in connections to the existing electricity transmission network from the new substations by either underground cables or overhead lines.


Tipperary
Kilkenny
Wexford
Rosslare
Waterford
Tramore
Dungarvan
Cork
Youghal
A: Tonn Nua
B: Lí Ban
C: Manannán
D: Danu
Kinsale

2.3.4 Powering Up Offshore South Coast

The Irish Government is taking major steps to make Ireland carbon neutral by 2050. These steps include a commitment to increase the proportion of electricity generated from renewable sources. This equates to installing around 5 Gigawatts (GW) of grid connected offshore wind capacity in the maritime area. Offshore wind phase 1 followed a developer-led planning approach, culminating in the ORESS 1 auction in 2023 which resulted in the procurement of over 3 GW of offshore wind, located at sites on the eastern Irish seaboard. Having procured approximately 3 GW of offshore wind capacity through ORESS 1, additional offshore capacity is needed to meet the government's 5 GW target by the end of the decade which resulted in the establishment of Phase 2 Offshore Wind, located on the southern Irish seaboard.

A key difference between Phase 1 and Phase 2 is that Phase 1 followed a developer-led approach while Phase 2 will follow a plan-led approach. This means that in Phase 2 the State, not individual developers, will determine the appropriate location of all future offshore windfarms and grid infrastructure. As part of the Powering Up Offshore South Coast project, EirGrid plans to initially develop an offshore transmission system which can transfer significant amounts of electricity from offshore wind farms off the south coast of Ireland to the onshore grid. The development will comply with the provisions of Irish Statute Book (ISB) Maritime Area Planning Act (MAPA) 2021, and Department of Climate, Energy and the Environment (DCEE), Policy Statements on the Framework for Ireland's Offshore Electricity Transmission System 6. Due to constraints on the grid, connecting onshore would need to be achieved at separate grid interface points. The offshore wind capacity would be split into separate grid interface points to connect into onshore grid connection sites on the South Coast.

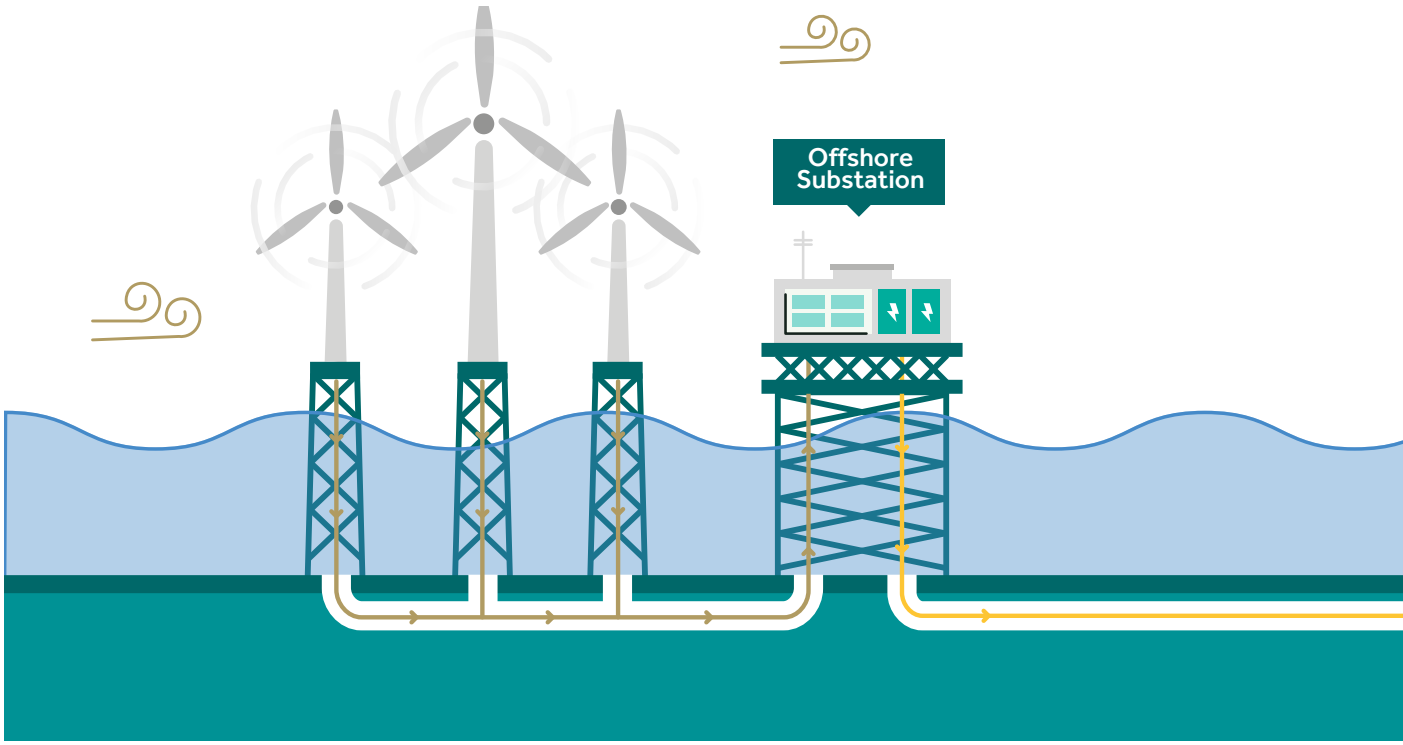


Figure 12: Generic offshore wind energy schematic

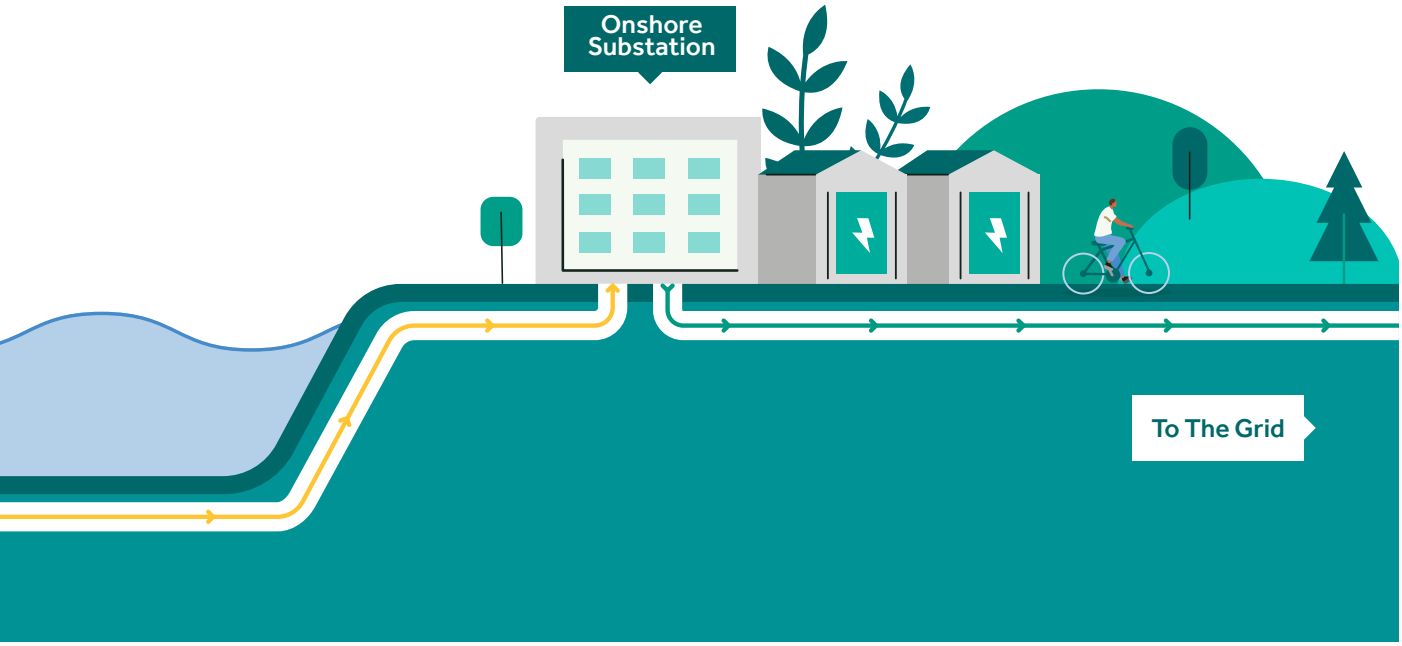
EirGrid has been designated as the Offshore Transmission System Owner and Offshore Transmission System Operator in the Maritime Area Planning Act 2021. EirGrid are responsible for the development, planning, design, consenting, construction and operations of the offshore transmission system, including the Offshore Substation (OSS), offshore and onshore transmission cables and the Onshore Compensation Compound (OCC). An offshore wind farm operator will be responsible for generating and delivering the power to the Transmission System Operator's offshore substation.

The Powering Up Offshore South Coast project will aim to deliver significant amounts of electricity from offshore wind in the Celtic Sea off the south coast of Ireland.

The development of the offshore electricity transmission system includes:

- Offshore Substations.
- Submarine power cabling and terrestrial cabling systems.
- Transition Joint Bays.
- Landfall areas.
- Onshore Substations.
- High Voltage (HV) Compensation compound and its infrastructure.
- Connection to the grid.
- Communication interfaces and control system.
- Other infrastructures to facilitate the requirements.

All works will be progressed by EirGrid following more consultation and in-line with our approach outlined in Part C of this report.



2.4 Innovation projects

Our partnership with ESB Networks allows us, as industry partners, to innovate and develop new ways of delivering projects. This can include new software, technology, survey and assessment methodologies, materials, and construction techniques. All of these types of innovations help to improve how grid development projects are delivered. In the context of this document, innovation projects are defined as the installation of 'non-wire' solutions. These can occur through various means that include:

- Dynamic Line Rating involve the use of devices that measure and assess the real-time capacity of existing lines and allows increased power flow in certain scenarios, such as when it is windy; and
- Power Flow Controllers control power flows across transmission lines with varying loading conditions aiming to optimize power flow, enhance grid stability, and improve the overall performance of existing transmission lines.

Dynamic Line Rating device (top image) is a ball-shaped apparatus which is connected onto overhead lines (centre image). Power Flow Controllers are designed and installed to fit in with existing substation equipment (bottom image).

Figure 13: Examples of innovation projects

2.5 Optimisation projects

The aim of these projects is to maximise the capacity of existing infrastructure, thus reducing the need for new infrastructure, minimising additional land use, and social and environmental impact. There are a number of line uprate and station reconfiguration projects that are listed in Table 1 above. These involve works within the stations and on existing lines themselves and generally do not involve any significant expansion to the existing station footprints, lines or structures.

Line uprate and upgrade projects involve increasing grid capacity using existing lines and corridors. These can occur through various means that include replacing components such as conductors, insulators and structures to uprate or upvoltage overhead lines so they can carry higher loads.

One example of an optimisation project in the Southern Region are presented below.

2.5.1 Oldstreet – Woodland 400 kV line refurbishment and Dunstown – Moneypoint 400 kV line refurbishment

There are two 400 kV circuits that cross Ireland both travel from the Moneypoint power station across the island towards Dublin – one terminates in Woodland substation, Co. Meath and the other in Dunstown substation, Co. Kildare. Both overhead lines allow the flow of electricity from large scale generators in the west to areas of higher demand in the east. Because of the age of the circuits, refurbishment and replacement of parts are required on both lines.

The proposed works consist of replacement of steel members, insulators, hardware, and earthwire, and tower painting. The northern of the two circuits runs from Moneypoint via Oldstreet in Galway to Woodland. The works are proposed on the section between Oldstreet and Woodland (126 km).
The southern of the two between Dunstown and Moneypoint requires refurbishment along its full length – 209 km.

2.6 Other key infrastructure projects in the plan area

The Southern Region Regional Programme for grid infrastructure development is an ambitious and challenging, yet a vital, major programme of electricity transmission infrastructure development in the Region, and for the country as a whole. However, it is important to consider the potential for cumulative impacts, considering 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.

2.6.1 Interactions with roads

As identified in the 2024 Climate Action Plan:

"To reach 80% of electricity demand from renewable sources by 2030:...
All relevant public bodies will carry out their functions in a manner which supports the achievement of the renewable electricity targets, including, but not limited to, the use of road and rail infrastructure to provide a route for grid infrastructure where this is the optimal solution" (Section 12.4.1.1 Accelerate Renewable Electricity Generation, Page 168.)

To that end, EirGrid has been working with Transport Infrastructure Ireland and Local Councils in the Southern Region to explore opportunities for the use of transportation infrastructure and agree an enduring engagement protocol for the development of HV electricity projects through the phases of project progression. All parties are working to prepare a set of principles and protocols to deliver in-line with the Climate Action Plan. This will be identified on a project-by-project basis and will follow extensive routing assessments to establish the optimal solution on the use of the transport infrastructure.

2.6.2 Distribution Network Development Plan

In August 2025, ESBN, in its role as Distribution System Operator (DSO), published the Distribution Network Development Plan Consultation Report . It outlines the Ten-Year Distribution Network Development Plan (DNDP), which will improve the distribution network throughout Ireland. The work is required to connect renewable generation and to address the increase in demand from population growth, new housing, economic growth, and the electrification of heat, transport, and industry.

The Consultation Report outlines work throughout the Southern Region. For example, in Cork City, seven new 110 kV substations and ten new 38 kV substations are planned. The Waterford, Butlerstown, and Great Island area has seven new substations planned, and the Ardnacrusha and Limerick area has nine new substations planned. These and other relevant works in the Southern Region are available to view in the Consultation Report.

EirGrid will work with ESBN on this Plan and associated transmission infrastructure development to ensure the successful, timely and sustainable implementation of the Plan will be included in our future Transmission Development Plans (TDPs) and Network Delivery Portfolio (NDP). The DSO and TSO projects will all be subject to relevant requirements and best practice for strategic planning and statutory consenting.

2.6.3 Other renewable and demand projects

This Strategic Framework outlines the projects that EirGrid currently has planned in the Southern Region. Future growth in the Region from housing, industry, and electrification of heat and transportation means that there are likely to be more grid projects required in the future. Additionally, more energy generation in the Region (e.g., offshore wind and solar) will also require further reinforcement of the grid. EirGrid believes in the future it will be necessary to strengthen the grid in the greater Cork area to satisfy this increased demand and supply.

This work is at a very early step in development and there are not yet any details on the type of projects and their location. When the projects are further developed, EirGrid will further consult with all parties as outline in Section 3 of this report.

There are a wide variety and number of different renewable energy and associated projects planned to occur in the Region, including wind and solar, battery storage, system service infrastructure that are being progressed by developers. These are not grid reinforcement projects but are known as customer projects. These are identified in Table 2 but are outside of the Regional Programme. Additional customer projects are likely to be added in the future.

Table 2: Customer projects in the Southern Region

EirGrid project code	Project name	County
CP1361	Booltaigh 110KV Station	Clare
CP1364	Moanalow 110 kV Station	Carlow
CP1461	Aughinish Transformer Replacement (Sealrock)	Limerick
CP0741	Trabeg 110 kV station - uprate 2 x 110 kV transformer bays and control room extension DSO	Cork
CP1069	Ballinknockane 110 kV Station (Ballinknockane Solar Farm)	Limerick
CP1128	Ballyvatta Solar Farm	Cork
CP1173	Glencloosagh Phase 1 - Rotating Stabiliser	Kerry
CP1236	Timoney 110 kV Station	Tipperary
CP1240	Coumaclovane Solar Extension	Kerry
CP1245	Castletreasure 110 kV Station (Ballinrea Solar Park)	Cork
CP1246	Coomnaclohy 110 kV Station (Knocknamork Wind and Solar Park)	Cork
CP1260	Dennistown 110 kV Station (Tracystown Solar)	Wexford
CP1280	Ballyragget Future Proofed Cable	Kilkenny
CP1285	Barnahely - Raffeen No 2 110 kV Line	Cork
CP1297	Glansillagh 220kV Station – ShannonLNG	Kerry

EirGrid project code	Project name	County
CP1331	Rosspile2 Solar Plus Storage Facility	Wexford
CP1338	Effernoge 110kv (Tomsallagh Solar)	Wexford
CP1347	Dunbrody 110 kV Station (Kilmannock Battery Storage Facility Phase 2)	Wexford
CP1351	Ballynadrideen 110 kV Station_Ballyroe Solar	Cork
CP1354	Coolshamroge 110 kV Station (Manusmore Solar Park)	Clare
CP1362	Bishopswood 110 kV Station (Blue Pine Solar)	Tipperary
CP1366	Lysaghtstown Phase 2	Cork
CP1367	Midleton 110kV Station Carrigogna BESS	Cork
CP1374	Ballyvouskil Battery Storage	Cork
CP1375	Boggeragh 110 kV Station (Carragraigue Solar Extension)	Cork
CP1378	Cooleeny 110 kV Station (Killoran Solar PV Farm)	Tipperary
CP1379	Cauteen 110 kV Station (Barnaleen Solar Farm)	Tipperary
CP1424	Tarbert OGCT	Kerry
CP1464	Tullabeg Phase 2	Wexford
CP1467	Carrownagowan Wind Farm	Clare
CP1468	Castlebanny Wind Farm	Kilkenny
CP1506	Signalling Cables for Grid Meter Installation	Offaly, Kerry
CP1516	Kilmacogue 110 kV Station (Ballyvalode Solar)	Limerick
CP1517	Kildinan 110 kV Station (Coom Green Energy Park)	Cork
CP1528	Lislaughtin 110k V Station (Dromlivuan Solar Farm)	Kerry

Known projects as of September 2025.

Part 3: Our approach

3.1 Stakeholder engagement

Effective engagement is essential for EirGrid to achieve our purpose — to transform the power system for future generations. We actively engage with policymakers, industry and society at all levels, from local to European, in line with our strategic objectives and government policy.

3.1.1 Public 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 meaningful public engagement.

The six-step approach to project development as outlined earlier in section 1.5 has public engagement and consultation embedded within the process. This ensures that from the earliest stages of our projects we are engaging with those who live in the communities that will be impacted by our projects.

It is important that we gain the support of individual landowners, their neighbours, and their wider communities when we are developing projects in an area. We must acknowledge the challenges of what we ask from individuals and communities for the benefit of the entire population, ensuring that they are consulted with and listened to from the outset.

A tailored approach is provided for each project with a bespoke engagement plan developed. A key aspect of all our plans is to seek to engage with the community at the earliest stages possible.

- Our Community Liaison Officers and Landowner Liaison Officers are located within the project regions and start developing relationships in the community and engaging with landowners.
- We seek to establish a community forum. The purpose of the forum is to bring together people and organisations in the study area of a project. In doing this it ensures that stakeholders and community views are understood and considered as part of the overall project delivery. It gives a voice to local communities and those impacted most by our infrastructure. The forum provides for open dialogue between the project teams and stakeholders.
- We acknowledge that when we are upgrading or adding new transmission infrastructure in an area, to help make the grid more efficient and sustainable, it will often involve some disruption to the local community. Our Community Benefit Policy recognises the importance of the local communities who support our work and the temporary disruption which may be caused during the construction phase of the project.

Under this initiative, we create a community benefit scheme in proportion to the scale of the project. We work with the Community Forum to ensure that the scheme is designed for the local community, by the local community. A community benefit strategy for each Grid Infrastructure Project is designed in consultation with the affected community. The strategy will guide the process for prioritising, selecting and supporting projects for investment.

As we work through the steps of the project development we will provide project information and seek to consult at specified steps as the project progresses.

Typically, this would involve us developing project brochures and updates and holding open days in the local area where members of the public can meet the experts and have their queries addressed. We promote these events and raise awareness of them via targeted social media content, advertising in local and national press, letters to landowners and statutory bodies, and providing spokespeople for discussions on public radio.

Stakeholders are invited to provide feedback in multiple formats including feedback forms online and at open days, through fora and webinars and by email or letter.

3.1.2 Statutory engagement

EirGrid is uniquely positioned to lead the island's electricity sector on sustainability and decarbonisation and to be a trusted, independent advisor to policy makers in Ireland and Europe through use of our deep expertise, knowledge and data. To support this, we engage in active and ongoing consultation with the government and regulatory authorities on key policies and strategic issues as required by legislation. This is done through formal correspondence, bilateral engagement, and participation in working groups, taskforces and meetings. EirGrid is also active across the European Union and beyond in terms of our engagement with key organisations.

Industry
Partners
Generators
Customers
Providers
Storage
Suppliers
Industry bodies

Statutory
Governments
Regulators
Agencies
Politicians
UK and EU

Society
Agriculture
Academia and schools
Community
Environment
Lobby groups
NGO
Public/Consumers

3.1.3 Industry engagement

The collaboration of our industry stakeholders is critical to delivery of the government's climate action targets. We respond to a wide range of needs across the wholesale energy sector in Ireland covering electricity generation and supply, interconnection and also the supply of necessary services to operate the system securely, especially at times with high penetration of generation from renewable sources.

In 2023, we worked with industry via a number of specific industry forums that would allow us to engage more meaningfully and effectively. One of these forums is the HV Interface Forum.

Established by EirGrid in late 2022, with an independent Chair, the HV Interface Forum has brought together stakeholders such as DECC, Transport Infrastructure Ireland (TII), ESB Networks and local roads authorities, to address key challenges blocking progress of planning applications and development projects.

Bringing together so many invested and informed parties in open dialogue is invaluable for shaping EirGrid's development plans. By seeking to establish ways of working, we will together be able to support the delivery of the shared objectives within Ireland's Climate Action Plan.

The HV Interface Forum's purpose is to ensure the best possible outcome for all. And through our facilitation of regular cooperative engagement, we are working towards securing our renewable electricity targets, particularly as we address the challenges presented by accommodating electricity transmission infrastructure within the road and rail networks.

Read about EirGrid's approach to Stakeholder Engagement in full (covering public, statutory and industry engagement) on our website.

3.2 Approach to project development

A focus in the development of all EirGrid projects, including the Southern Region projects, 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 document, 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.

3.3 Approach to planning and consenting of projects

Grid infrastructure development such as the Southern Region projects 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.

For onshore planning, 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 Coimisiún Pleanála, following formal pre-application consultation with the Board.

However, An Coimisiún 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.

For offshore planning, the Maritime Area Planning Acts 2021 and 2022 (and other legislation) established a new planning system for Ireland's maritime area, underpinned by a statutory Marine Planning Policy Statement and guided by the National Marine Planning Framework. The Maritime Area Regulatory Authority (MARA) is a state agency that was established in 2023 with responsibility for consenting project in the maritime area. The maritime area generally extends from the high water mark to the outer limit of Ireland's continental shelf. MARA will determine Maritime Area Consents (MAC) for any activity, operation, works or development within the maritime area. MARA also issues Maritime Usage Licenses (MUL) for maritime activities including surveys, site investigations, and dredging. EirGrid works with MARA for its offshore project consenting and MARA will be the Planning Authority for Powering Up Offshore South Coast.

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 Coimisiún Pleanála and/or the relevant Planning Authorities), but also informally by EirGrid (see Section 1.4 and Section 5 of this document).

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).

3.4 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.

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. EirGrid also sits on and contributes to the national SEA Forum chaired by Ireland's SEA Environmental Authorities. The forum assists plan makers such as EirGrid to follow and adopt best practice and understand and comply with emerging policy and legislation.

EirGrid's five-year Grid Implementation Plan 2017-2022 (IP) was adopted in 2024[14] following SEA and AA in accordance with legal requirements and best practice.

The Grid IP and SEA has a significant marine focus, in the context of EirGrid's statutory role as Transmission Asset Owner for all future offshore grid required to connect 5 GW of offshore wind by 2030.

EirGrid's SEA monitoring report (2023)[15] on the previous 2017-2022 IP shaped and influenced the SEA EirGrid's current plan, namely the Grid IP 2023-2028. EirGrid will undertake an analysis of SEA monitoring to determine if targets for each Strategic Environmental Objective in the 2023-2028 Grid IP were met, and if not, or in the case of knowledge gaps, what process improvements are required.

EirGrid will monitor and manage the potential significant negative effects and any unforeseen effects of the current Grid IP, with reporting on indicators annually starting in 2024, to be published in EirGrid's Annual Report or annual Sustainability Report.

[14] https://cms.eirgrid.ie/sites/default/files/publications/Grid-Implementation-Plan-September-2024.pdf
[15] https://cms.eirgrid.ie/sites/default/files/publications/210727-EirGrid-SEA-Monitoring-Report_PUBLISHED_FINAL.pdf

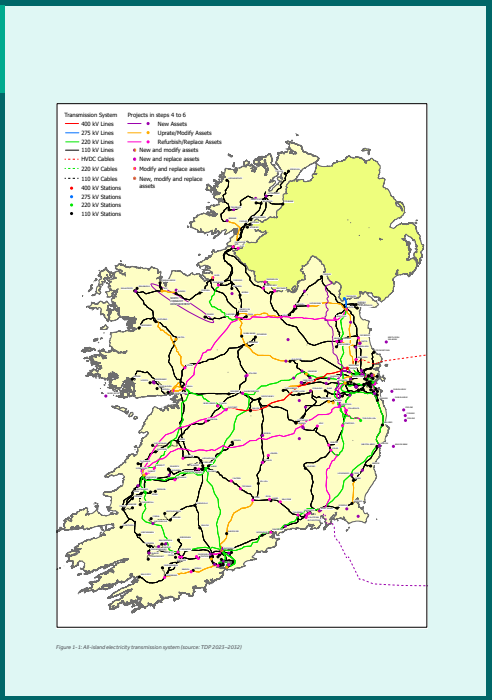


Figure 14: EirGrid's 2023-2028 IP

This Regional Strategic Framework forms part of a suite of Strategic Frameworks which derive from the National Grid Implementation Plan and associated SEA.

EirGrid ensures best practice in the effective application of SEA, by explicitly transferring environmental policy in the Grid IP on all lower-level plans, programmes, and projects as per Objective ENV015 in the Grid IP:

"To integrate Grid IP policies into lower-tier plans and programmes, and projects (so-called 'tiering' or transfer of mitigation from higher to lower levels), and monitor, report, and continually improve on the degree of effective implementation via the SEA monitoring process."

In the context of the Southern Region Regional Programme, implementation of Grid IP Objective Env015 is evidenced by the integration of all IP policies into the programme.

FEHILY TIMONEY

CONSULTANTS IN ENGINEERING, ENVIRONMENTAL SCIENCE & PLANNING

GRID IMPLEMENTATION PLAN 2023-2028 FOR THE ELECTRICITY TRANSMISSION SYSTEM IN IRELAND

Strategic Environmental Assessment Statement

Prepared for:
EirGrid

EirGrid

Date: September 2024

Core House, Pouladuff Road, Cork, T12 D773, Ireland
T: +353 21 496 4133 | E: info@ftco.ie

CORK | DUBLIN | CARLOW
www.fehilytimoney.ie

CLIENT: EirGrid
PROJECT NAME: SEA Statement for Grid Implementation Plan 2023-2028

The toolkit contained in the EPA's guidelines entitled 'Developing and Assessing Alternatives in Strategic Environmental Assessment Good Practice Guidance' (2015) was utilized when identifying reasonable alternatives. The 'Why? What? Where? When?' Model defined in the guidelines were used when framing reasonable alternatives, as shown in Figure 3-1.

Figure 3-1: 'Why? What? Where? When?' Model for framing alternatives - Adapted from Figure 4.3 Developing and Assessing Alternatives in the Strategic Environmental Assessment Process (EPA, 2015).

3.3 Identification and Description of Reasonable Alternatives

Reasonable alternatives to the Grid IP were identified. A description of these reasonable alternatives and the reasons for selecting these reasonable alternatives are presented in Table 3-1.

Alternatives	Considerations
1) No Plan - With reliance on the Grid Development Strategy	In the absence of the Grid IP grid development would still occur but it would not be framed by targeted policies and objectives designed to ensure sustainable grid development. This could result in a more ad hoc approach to grid development and there would be some uncertainty with regards to the achievement of the SEOs. There would be a mixture of positive and negative effects on the SEO's. Any development would be subject to planning/legal processes that would reduce potential environmental effects. However, this alternative does not take account of the environmental policies included in the Grid IP. These would have positive impacts in relation to protecting the environment with respect to future grid development.
2) Continuation of Previous Plan- Grid 25 Implementation Programme	This alternative would involve development of the projects identified in the Grid IP by applying the policies and objectives from the previous plan. Applying the previous plan policies would not take account of: • The strengthened policies developed through the SEA process and adopted in the Grid IP. • The progress and commitments made by EirGrid with regard to Community Benefits Scheme and dedication to environmental record gathering. • The role of EirGrid as TSA and TSO within the marine space. • The provisions for emergency generation facilities. • The recommendations and mitigation in the SEA ER for the Grid IP.

P22-224 www.fehilytimoney.ie Page 48 of 64

Figure 15: EirGrid's SEA Statement 2023-2028

The Grid IP, the TDP and the SOEF Roadmap each provide a different level of scale and detail – from the long-term vision statements contained in the SOEF, to the objectives and policies to implement the strategy set out in the Grid IP, to the specific projects outlined in the TDP.

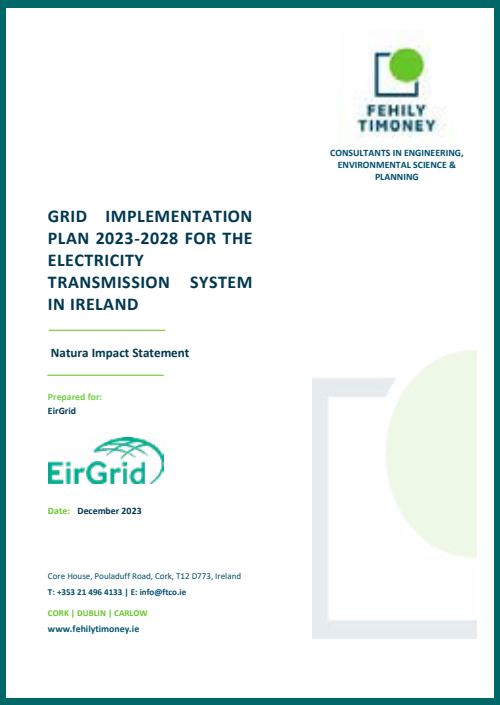
The programmatic approach in the Southern Region Regional Programme exemplifies implementation of Grid IP policy EnvP3 which is:

"To apply a strategic/programmatic approach to onshore and offshore grid development to optimise environmental assessment and public engagement at a regional/landscape scale. Through programmatic approaches, reduce timescales and resources, and increase project delivery rate to achieve the 2030 target of 80% electricity from renewable sources."

3.5 Appropriate Assessment (AA)

EirGrid undertook Screening for Appropriate Assessment (AA) of the Grid Implementation Plan (2023-2028), 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, a Natura Impact Statement (NIS) was prepared in respect of the Implementation Plan, as likely significant effects from the plan alone or in combination wither other plans or projects, could not be excluded in the absence of mitigation. The NIS was issued for public consultation along with the Draft SEA Environmental Report and Draft IP in October 2023. The current NIS, SEA Statement, and Grid IP were all finalised and published in 2024.



FEHILY TIMONEY

CONSULTANTS IN ENGINEERING, ENVIRONMENTAL SCIENCE & PLANNING

GRID IMPLEMENTATION PLAN 2023-2028 FOR THE ELECTRICITY TRANSMISSION SYSTEM IN IRELAND

Natura Impact Statement

Prepared for:
EirGrid

EirGrid

Date: December 2023

Core House, Pouladuff Road, Cork, T12 D773, Ireland
T: +353 21 496 4133 | E: info@ftco.ie
CORK | DUBLIN | CARLOW
www.fehilytimoney.ie

CLIENT: EirGrid
PROJECT NAME: Grid Implementation Plan 2023 - 2028
SECTION: Natura Impact Statement

Figure 2-3: International HV Electrical infrastructure showing the interconnectors (Source: EirGrid)

Figure 2-4: The National Transmission System at a national scale showing the existing network (Source: EirGrid)

P22-224 www.fehilytimoney.ie Page 9 of 118

Figure 16: EirGrid's NIS of the Grid IP 2023-2028

The NIS determined what mitigation measures were required to avoid the Grid IP (2023-2028) having adverse effects on European sites. Mitigation measures include inserting or amending 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. 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.

The published SEA Statement for the Grid IP 2023-208 is published on the EirGrid website[16], where you can find more information that also includes information on Screening for Appropriate Assessment (AA).

16 https://cms.eirgrid.ie/sites/default/files/publications/SEA-Statement-for-EirGrid-Grid-Implementation-Plan-2023-2028.pdf

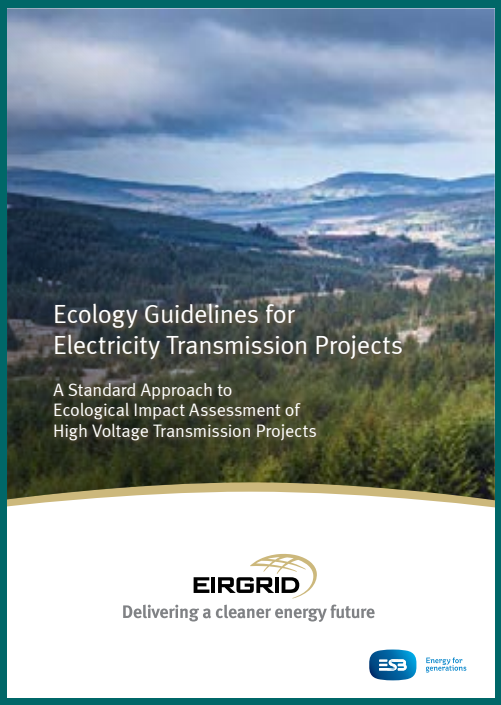
3.6 Environmental assessment

EirGrid's planning and environmental team is embedded into the Cross Functional Team decision-making on every grid development project, 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, mitigating against climate change, and avoiding and mitigating against adverse environmental impacts to biodiversity, cultural heritage, water, landscape, soils and noise. In the context of the twinned climate and biodiversity emergency, EirGrid has committed at the highest management level, to go beyond protection nature, to aim for restoration on every project.

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 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 (especially those in the Grid IP) which ensure appropriate protection of the environment in grid development.



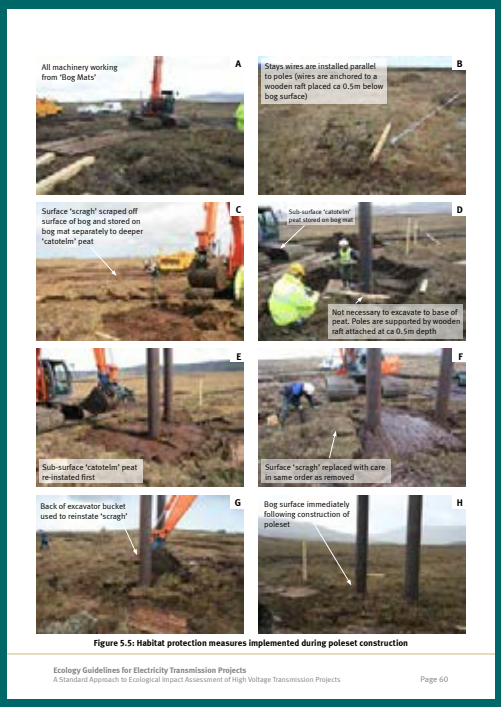


Figure 17: EirGrid's Ecology Guidelines

3.6.1 Biodiversity and nature inclusive design

At EirGrid, protecting and restoring nature is integral to the work to decarbonise the electricity grid. Since the Irish government declared the biodiversity and climate emergency in 2019, EirGrid has accelerated their action for nature. The stated mission of our executive leadership is to go beyond simply protecting nature, to restoring it.

EirGrid's approach to nature protection and restoration is achieved in line with EirGrid's published Ecology Guidelines for Electricity Transmission Projects (2020)[17] and their Nature Inclusive Design commitments (2022)[18].

EirGrid's Ecology Guidelines, authored in collaboration with ESB, sets out the standards 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 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).

[17] https://cms.eirgrid.ie/sites/default/files/publications/Ecology-Guidelines-for-Electricity-Transmission-Projects.pdf
[18] https://cms.eirgrid.ie/sites/default/files/publications/211603-EirGrid-Nature-Inclusive-Design-Pilots_Published_Final.pdf

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 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 are assigned to integrate biodiversity into the design of other project elements, serving multiple functions also as climate adaptation and visual screening.

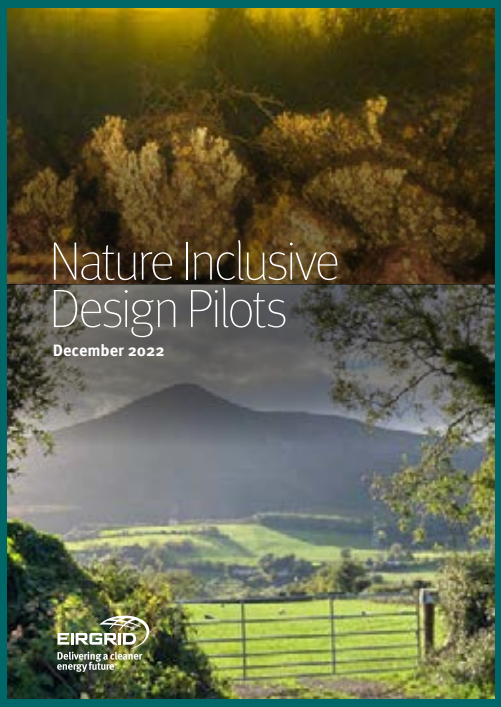


Figure 18: EirGrid's Nature Inclusive Design Pilots document

Integration of Nature Inclusive Design has been required by EirGrid's consultants on all major grid projects since 2022. A summary of Nature Inclusive Design pilots was published in 2022.

The various projects in the Southern Region 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) and nationally designated Natural Heritage Areas (NHA).

The routing, mitigation design, and any monitoring requirements of the various projects within the Southern Region 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.

As reported in EirGrid's own Evidence-based Studies on birds[19], a major scientific review of the effectiveness of 'bird flight diverters' globally found bird deaths were reduced by 78% overall on lines fit with such devices.

In 2024, in collaboration with our partners ESB, we helped mitigate bird collision risk with existing overhead lines by retrofitting 'bird flight diverters' on a further 28km of overhead lines spans (to a total of 53.2 km). This more than triples the length retrofit in 2023. If all over head line spans with bird flight diverters were laid out, these would complete 130 laps of an athletics track.

[19] https://cms.eirgrid.ie/sites/default/files/publications/EirGrid-Evidence-Based-Environmental-Study-5-Birds.pdf

EirGrid is an active member of the Offshore Coalition for Energy and Nature (OCEaN), committed to implement OCEAN recommendations to achieve European climate, energy and biodiversity targets. In support of this, in 2023, EirGrid's Chief Infrastructure Office approved the policy pillars in EirGrid's draft Marine Biodiversity Policy Statement, which will:

- Support Marine Protected Areas and Fisheries, including implementation of the Seafood Offshore Renewable Energy Working Group's recommendations.
- Make high quality Environmental Data Publicly Available to benefit academic research and optimise the evidence base for sustainable offshore development.
- Integrate design features into EirGrid's marine cables and substations to provide refuge habitat for fish and promote 'artificial reef' establishment.

In 2024, in our Grid Implementation Plan 2023-2028, we articulated our ongoing commitment to meet no net loss of biodiversity on our projects (wherever possible, unless constrained by external factors), and net biodiversity gain. The plan, which has been subject to SEA, was adopted in 2024, and will be subject to SEA monitoring through the plan cycle.

Our Grid IP also commits to risk assess if we can revise the current restriction on planting shrubs over buried cables. Our approach combines international engagement and technical innovation, to demonstrate our commitment to restore Ireland's biodiversity.

Policies included in the Grid IP include:

- **BIODP6:** To integrate into offshore grid projects risk-assessed Nature Inclusive Design measures with proven ecological performance. The performance of such measures will be monitored to inform adaptive management, and the results of this monitoring and details of any corrective actions will be openly shared to advance the common understanding of marine NID.
- **BIODP8:** To develop and implement marine biodiversity policy as EirGrid develops offshore grid projects, to include considerations for Marine Protected Areas, Marine Nature Inclusive Design, monitoring of mitigation effectiveness, and providing open access to high quality environmental data, in line with European and national legislation and policy.

All of the above biodiversity actions initiatives will be implemented on projects within the Southern Region where relevant.

The various projects in the Southern Region 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) and nationally designated Natural Heritage Areas (NHA).

The routing, mitigation design, and any monitoring requirements of the various projects within the Southern Region 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.

Finally, in accordance with the concept of 'tiering' (transfer of policy and mitigation from high level plans through lower tier plans down to project level), EirGrid will ensure all relevant biodiversity policy in the Grid IP is implemented on the Regional Programme, and the projects therein once developed.

3.6.2 Cultural heritage

In accordance with EirGrid's published Cultural Heritage Guidelines for Electricity Transmission Projects (2015)[20], 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 in the Southern Region 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).

The routing, mitigation design, and any monitoring requirements of the various projects within the Southern Region will consider the protected sites – both in terms of direct effects and impacts to setting. Preconstruction archaeological investigations would be undertaken following consultation with Local Councils and the Department of Housing, Local Government and Heritage.

EirGrid will ensure all relevant cultural heritage policy in the Grid IP is implemented on the Regional Programme, and the projects therein once developed.

[20] https://cms.eirgrid.ie/sites/default/files/publications/Cultural-Heritage-Guidance-for-Electricity-Transmission-Projects.pdf

3.6.3 Population and social impact

The projects in the Southern Region could affect resident, working and visiting populations. 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 established 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.

EirGrid will ensure all relevant population and social impact policy in the Grid IP is implemented on the Regional Programme, and the projects therein once developed.

3.6.4 Land use

The projects in the Southern Region will have the potential to affect land use. 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 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 through its Land Management Unit. It will also engage with State landowners – in particular the relevant Planning Authorities, the Office of Public Works (OPW), and ESB Networks – in order to explore options for the siting of the various projects which avoid or reduce potential impact on their receiving environments.

EirGrid will ensure all relevant land use policy in the Grid IP is implemented on the Regional Programme, and the projects therein once developed.

3.6.5 Traffic

The projects in the Southern Region 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 be potential for traffic disruption, as a result of construction traffic and where there are in-road works. 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 routeing 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.

EirGrid will ensure all relevant traffic policy in the Grid IP is implemented on the Regional Programme, and the projects therein once developed.

3.6.6 Material assets, utilities and safety

In terms of material assets, projects of the type planned in the Southern Region 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. 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.

EirGrid will ensure all relevant policy in the Grid IP is implemented on the Regional Programme, and the projects therein once developed.

3.7 Social Impact Assessment (SIA)

EirGrid has made a commitment to demonstrate how social impact is considered as grid infrastructure projects are developed.

Social Impact Assessment (SIA) is the tool used to address a range of tangible (measurable) considerations, but also intangible issues such as local knowledge, perceptions, vulnerabilities, language and beliefs for those individuals, community or network of communities that are most likely to be impacted by a project.

SIA is conducted within a defined boundary or 'social area of influence' which largely consists of the people potentially impacted by the project; these may be both local 'communities of place' and broader 'communities of interest'.

The social area of influence may therefore be significantly different to the zone of impact typically applied in the context of Environmental Impact Assessment (EIA). Stakeholder analysis and mapping is required to understand where these boundaries lie.

EirGrid has developed a methodology framework for SIA to provide a consistent format in assessing the potential social impacts of grid development projects. This SIA methodology, which has had regard to the six-step approach to development projects, will facilitate the early identification of social concerns and issues. This will thereby inform the identification, avoidance or minimisation of potential adverse impacts of transmission infrastructure on receiving communities.

Part 4: Next steps

This Strategic Framework for Planning and Environment for the Southern Region provides a high level overview of the nature and extent of planned grid infrastructure development in the Region, as well as how EirGrid plans and develops its projects.

The Strategic Framework document 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 grid infrastructure in the Region. This includes the Southern Regional Assembly, relevant Planning Authorities, An Coimisiún Pleanála, MARA, prescribed bodies, other Statutory and non-Statutory agencies and authorities, the general public and communities, and landowners – including utility and infrastructure-related developers and operators.

The overall vision of this approach is that the proposed projects in the Southern Region will be realised as a key enabler of National Policy for climate action, Regional and National economic and social growth, and proper planning and sustainable development.


BG FREIGHT LINE
Hybrid
CALYPSO
Van Oord


Brittany Ferries

The Oval, 160 Shelbourne Road,
Ballsbridge, Dublin 4, D04 FW28, Ireland
+353 (0) 1 627 1700 | eirgrid.ie

WORLD
LAND
TRUST™
www.carbonbalancedpaper.com
CBP002856