Celtic Interconnector

Volume 2A: Planning Report

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EIRGRID

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1 Introduction

1.1 Report Context

This report has been prepared to accompany an application for Statutory Approval made by EirGrid plc (hereinafter referred to as EirGrid) to An Bord Pleanála (ABP), in respect of that portion of the overall proposed Celtic Interconnector project located onshore in Ireland, and which has been designated by ABP as Strategic Infrastructure Development (SID).

As outlined in more detail in Section 2.1 below, the proposed interconnector extends between County Cork in Ireland and Brittany in North-Western France. The proposed interconnector is a joint initiative between EirGrid – the Irish electricity Transmission System Operator (TSO) and Réseau de Transport d'Électricité (RTE) the French TSO.

The application for statutory approval of SID, and this planning report, relates specifically to that element of the overall planned Celtic Interconnector project located onshore in Ireland. The term "onshore" is used to refer to the proposed development above the High Water Mark (HWM) – see also Section 6.7 of this report. Separate consent applications are being made to the relevant Competent Authorities for the remainder of the overall proposed interconnector – Ireland Offshore, UK Offshore and France Offshore and Onshore.

The overall Celtic Interconnector project has been designated a Project of Common Interest (PCI – see Section 3 of this report and elsewhere). An Application File in respect of those elements of the overall Celtic Interconnector project in Ireland is therefore concurrently being submitted to the PCI Unit of ABP.

Given its multi-consent nature, in accordance with Article 10(4)(a) of *Regulation (EU) No. 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No. 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009* (hereafter 'the TEN-E Regulation'), the scope of the overall PCI Application File in Ireland has been identified by the ABP PCI Unit – in close cooperation with the other authorities concerned, and on the basis of a proposal by EirGrid plc as project promoter - as a multi-volume format, as summarised in Table 1.1.

Table 1.1: Structure of PCI Application Documentation

Consents	Volumes	No.	Contents
1. Strategic Infrastructure Development (SID) Application:	**Volume 1**	1A	Statutory Particulars
		1B	Planning Drawings
	Volume 2	2A	Planning Report
		2B	Public and Landowner Consultation Report
	Volume 3	3A	Non-Technical Summary (NTS) for Ireland Onshore**
		3C	Environmental Impact Assessment Report (EIAR) for Ireland Onshore**
	Volume 4		Environmental Report for UK Offshore*[and] **
	Volume 5		Joint Environmental Report (JER)
	Volume 6	6A	Onshore Natura Impact Statement (NIS) for Ireland (including in-combination effects) **
2. Foreshore Licence Application:	**Volume 3**	3B	NTS for Ireland Offshore*
		3D	EIAR for Ireland Offshore*
	Volume 4		Environmental Report for UK Offshore*[and] **
	Volume 5		Joint Environmental Report (JER)
	Volume 6	6B	Offshore NIS for Ireland (including in-combination effects)*
	Volume 7	7A	Statutory Particulars
		7B	Foreshore Licence Drawings
	Volume 8	8A	Planning and Consultation Report
		8B	Marine Strategy Framework Directive Assessment
		8C	Water Framework Directive Assessment
3. CRU Consent Applications:	**Volume 9**	9A	Draft Application Form under Section 16(1)(b) of the 1999 Act for Authorisation to Construct an Interconnector
		9B	Draft Application under Section 48 of the 1999 Act for Consent to Lay Electric Cables Applications
			Draft Application under Section 49 of the 1999 Act for Consent to Lay Electric Cables Applications

Notes:
* This is proposed to be submitted as part of the SID Application for information purposes.
** This is proposed to be submitted as part of the Foreshore Licence Application for information purposes.

This structure of the SID application documentation is summarised in Table 1.2. The application particulars for this SID application therefore comprise the following:

- Statutory particulars including planning drawings **(Volume 1)**;
- This Planning Report **(Volume 2A)**;
- A Public and Landowner Consultation Report **(Volume 2B)**;
- An Environmental Impact Assessment Report (EIAR), including Non-Technical Summary, prepared in respect of the Ireland Onshore proposal, and for information, the EIAR prepared in respect of the Ireland Offshore proposal **(Volume 3)**;

- An Environmental Report prepared for the UK Offshore proposal, included for information purposes **(Volume 4)**;
- A Joint Environmental Report (JER) prepared by RTÉ and EirGrid in respect of the overall proposed interconnector **(Volume 5)**; and
- A Natura Impact Statement (NIS) **(Volume 6)**.

Table 1.2: Structure of SID Application Documentation

Consents	Volumes	No.	Contents
1. SID Application - Main Particulars:	**Volume 1**	1A	Statutory Particulars
		1B	Planning Drawings
	Volume 2	2A	Planning Report
		2B	Public and Landowner Consultation Report
	Volume 3	3A	NTS for Ireland Onshore
		3C	EIAR for Ireland Onshore (including cumulative and transboundary effects)
	Volume 5		JER
	Volume 6	6A	Onshore NIS (including in-combination effects)
- Reference Particulars:	**Volume 3**	3B	NTS for Ireland Offshore (for information)
		3D	EIAR for Ireland Offshore (for information)
	Volume 4		Environmental Report for UK Offshore (for information)
	Volume 6	6B	Offshore NIS (for information)

1.2 The Applicant for this SID Application for Approval

With the enactment and coming into force[1] of the *Electricity Regulation Act, 1999* ('the 1999 Act'), the liberalisation of the electricity sector commenced. This liberalisation has been driven in large part by European directives – in particular Directives 96/92/EC[2], 2003/54/EC[3] and 2009/72/EC. The 1999 Act established the Commission of Electricity Regulation (now the Commission for Regulation of Utilities (CRU)) as the independent regulator of the electricity industry in Ireland.

The liberalisation of the electricity industry has involved the separating of, or unbundling of, various functions which were once concentrated in the Electricity Supply Board (ESB). The function of Transmission System Operator (TSO) has been conveyed to EirGrid plc[4] (EirGrid), whilst the function of Distribution System Operator has been conveyed to ESB Networks Limited (ESBNL). The Transmission System Owner (or the Transmission Asset Owner / TAO) is the ESB[5].

On 29 June 2006, the CER issued a TSO Licence to EirGrid pursuant to Section 14(1)(e) of the 1999 Act, as inserted by Regulation 32 of the European Communities S.I. No. 445/2000 (Internal Market in Electricity) Regulations, 2000 ('the 2000 Regulations'). Thus, from 1 July 2006, EirGrid has assumed the role of TSO.

Regulation 8(1)(a) of S.I. No. 445/2000 provides that EirGrid, as TSO, has 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 and having due regard for the environment".* (Emphasis added in bold)

EirGrid operates and develops the national electricity grid power system, providing services to all users of the electricity transmission system[6]. This includes all generators, suppliers, and high voltage customers. EirGrid also owns SONI Limited (SONI), the System Operator of Northern Ireland. The Single Electricity Market Operator (SEMO) is the market operator of the all-island wholesale electricity trading system. SEMO is a joint venture between EirGrid and SONI.

[1] The *Electricity Regulation Act, 1999* came into force in February 2000.
[2] The 1999 Act and the *European (Internal Market in Electricity) Regulations*, 2000; The *European (Internal Market in Electricity) (Amendment) Regulations,* 2002; The *European (Internal Market in Electricity) (Amendment) Regulations*, 2003 were amongst the measures enacted / passed to give effect to this directive.
[3] The *European (Internal Market in Electricity) Regulations*, 2005, The *European (Internal Market in Electricity) Regulations*, 2006 and The *European (Internal Market in Electricity) (Electricity Supply Board) Regulations*, 2008 were amongst the measures enacted / passed to give effect to this directive.
[4] EirGrid is a public limited company established pursuant to Regulation 34 of the European Communities (Internal Market in Electricity) Regulations 2000 (S.I. No. 445/2000) and the licensed Transmission System Operator for Ireland pursuant to Section 14 of the Electricity Regulation Act 1999.
[5] ESB is the licensed Transmission System Owner (TAO) for Ireland pursuant to Section 14 of the Electricity Regulation Act 1999.
[6] The transmission network essentially refers to the higher voltage grid of 400 kV, 220 kV and 110 kV. The lower voltage distribution network is primarily developed as 38 kV, 20 kV or 10 kV infrastructure.

It is in this capacity, and as the 'undertaker' referred to in Section 182A of the *Planning and Development Act 2000* as amended (hereafter 'the Planning Act'), that EirGrid is proposing to develop that part of the proposed Celtic Interconnector located in Ireland (refer to Section 2 of this report, and also Chapter 2 of Volume 3C for a comprehensive description of the proposed Ireland Onshore development). As noted in Section 1.1 above, this will form part of a suite of applications being submitted by EirGrid with its development partner RTE.

1.3 Purpose and Structure of this Report

The purpose of this planning report is to present an overview of the planning issues associated with the proposed development. It is intended to assist ABP in determining whether the proposed development is in accordance with principles of proper planning and sustainable development, and accordingly whether Statutory Approval should be granted for the proposed development.

The structure of this planning report is as follows:

- **Chapter 1: Introduction**
- **Chapter 2: Description of Proposed Development**
- **Chapter 3: Legislative Context**
- **Chapter 4: Planning Policy Context**
- **Chapter 5: Social and Community**
- **Chapter 6: Planning Appraisal**
- **Chapter 7: Conclusions**

1.4 Need for the Project

The Celtic Interconnector project, being jointly developed by EirGrid and RTE, will create an electrical interconnection between Ireland and France to allow the exchange of electricity between the two countries.

The Celtic Interconnector is being developed in response to European challenges such as the energy transition and the management of climate change. Identified as a PCI by the European Union (see Section 3 of this report), the project meets the criteria detailed in Article 4 of the TEN-E Regulation - i.e. the project contributes significantly to at least one of the following specific criteria:

- **Market integration**, *inter alia*, through lifting the isolation of at least one Member State and reducing energy infrastructure bottlenecks; competition and system flexibility;
- **Sustainability**, *inter alia*, through integration of renewable energy into the grid and the transmission of renewable generation to major consumption centres and storage sites;

- **Security of supply**, *inter alia*, through interoperability, appropriate connections and secure and reliable system operation.

The Celtic Interconnector will:

- **Facilitate an increase in the use of renewable energy**: An interconnection between Ireland and the continent will increase the integration of renewable energy at the European level and enable France and Ireland to move forward in terms of the energy transition (in line with national policies in respect of the development of renewables);
- **Provide security of supply**: pooling resources will enable both countries to better cope with contingencies and spikes in electricity consumption. Interconnection will promote mutual assistance between both countries and will work in both directions;
- **Improve European solidarity on energy**: the Celtic Interconnector project will be a benchmark project in terms of European Solidarity on energy. It will enable Ireland to benefit directly from the European integrated electricity market. The Celtic Interconnector will be Ireland's only direct transmission link with another Member State of the European Union;
- **Promote the movement of electricity flows at a European level**: by promoting the movement of electricity in Ireland, in France and throughout all of continental Europe, the Celtic Interconnector will enable European consumers to benefit from a more open electricity market;
- **Support the development of a more sustainable electricity mix in France and in Ireland**: The Celtic Interconnector will contribute to European objectives of a low-carbon energy future, promoting the development of other renewable energy sources and their integration into the European electricity system.

In this context, the project enjoys strong support from both the French and Irish governments, as well as from the European Commission. Of particular note in this regard, the completion of the project is specifically included in the current Programme for Government, as follows:-

- In respect of Mission: A Green New Deal, the Programme states: "*We will take the necessary action to deliver at least 70% renewable electricity by 2030. To achieve this, we will:…Complete the Celtic Interconnector to connect Ireland's electricity grid to France"* (p35);
- In respect of Mission: At the Heart of Europe and Global Citizenship, and in particular respect of Ireland at the Heart of Europe, the Programme states: "*We will:…Support work on the Celtic Interconnector, which will link Ireland to Europe's energy grid, increase competition in electricity prices, and help Ireland to switch to at least 70% renewable electricity"* (p111).

The Celtic Interconnector project is also specifically included in Project 2040: The National Development Plan 2018-2027. In particular respect of Strategic Outcome 8: Transition to a Low-Carbon and Climate-Resilient Society, the project is identified as a commercial state sector investment (p 78-79 and Figure 1.1 below).

Figure 1.1: Extract from Project Ireland 2040 (Source: National Development Plan 2018-2027 p79)

2 The Proposed Development

2.1 Project Overview

The Celtic Interconnector is a subsea link that will enable the exchange of electricity between the electrical transmission grids in Ireland and France. The link will have the capacity to carry up to 700 MW of electrical energy between the two systems.

The transmission grids in both Ireland and France are operated at High Voltage Alternating Current (HVAC). High Voltage Direct Current (HVDC) is used for the transmission of electrical power over large distances where HVAC is not technically or economically feasible. Converter stations are therefore required in both France and Ireland to convert the HVDC power to HVAC.

The main elements of the Celtic Interconnector project are (see Figure 2.1 and Figure 2.2):

- A High Voltage Direct Current (HVDC) submarine cable of approximately 500 km in length laid between the coast of Brittany in France, and the Cork coast in Ireland;
- A landfall location in Ireland and France, where the HVDC submarine circuit will come onshore and terminate at a transition joint bay;
- An underground HVDC cable in both countries between the landfall location and a converter station compound; the converter station will convert the electricity from HVDC to HVAC and vice versa;
- An underground HVAC cable in both countries between the converter station compound and the connection point to the National Grid;
- A connection to the National grid; and,
- A fibre optic link will also be laid along the entire route for operational control, communication and telemetry purposes.

Figure 2.1: Celtic Interconnector Overview of Project Elements (Source: EirGrid)

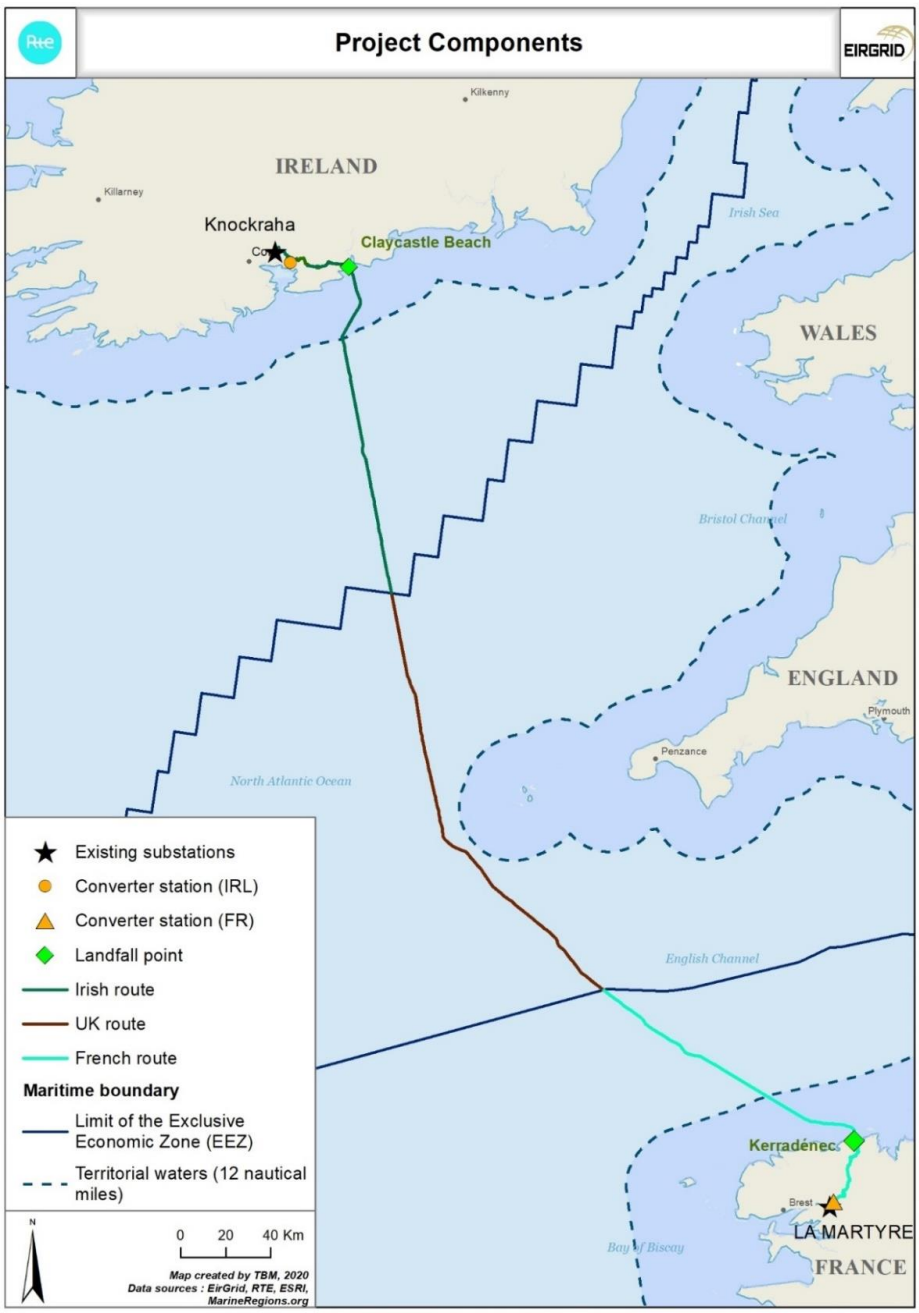

Figure 2.1: Overview of the Entire Route of the Celtic Interconnector (Source: TBM Consulting Group)

The main elements of the Ireland Onshore portion of the Celtic Interconnector project – comprising the subject of an application for Approval by the Strategic Infrastructure Division (SID) of An Bord Pleanála, comprise:

- A landfall location at Claycastle Beach, Youghal, County Cork, where the HVDC submarine cable comes onshore and into a Transition Joint Bay (TJB);
- A HVDC onshore underground cable (UGC) circuit between the TJB and a converter station, located at the existing IDA landholding at Ballyadam, east of Carrigtwohill, East Cork;
- The converter station, and associated electricity infrastructure, will convert the electricity from HVDC to High Voltage Alternating Current (HVAC), which is used on the Irish transmission grid;
- A HVAC UGC circuit between the Ballyadam converter station and the connection point on the transmission grid, at Knockraha substation, near Watergrasshill, in County Cork;
- Electrical infrastructure and apparatus at the existing Knockraha substation (see Figure 3.2 below) to connect the interconnector to the National Grid.

A detailed description of the proposed Ireland Onshore element of the Celtic Interconnector project is set out in Chapter 2 of Volume 3C (Part 2) of the EIAR of the application submission.

2.2 Project Development

The Celtic Interconnector project has been in development for some ten years; a significant portion of this time involved investigating, and ultimately confirming, the feasibility of the project. The Irish onshore elements of the project have been developed in accordance with EirGrid's six-step Framework for Grid Development, as summarised in Figure 1.1. The Framework ensures that project development occurs in a consistent and structured manner, with adequate and appropriate opportunities for public and stakeholder participation in project decision-making.

Figure 2.3: EirGrid Six-Step Framework for Grid Development (Source: EirGrid)

The Framework approach, in summary, is that each "Step" concludes with outcomes (such as decisions, next steps etc.) that build upon each other. Deliverables within the Steps, such as reports, brochures etc., are available on the project website at www.eirgridgroup.com, and are contained as Appendices within the EIAR and elsewhere in this application.

With particular regard to the identification of siting and routing options for the proposed development, EirGrid, together with its onshore Consultants Mott MacDonald, have undertaken Steps 3 and 4 of the Framework, with associated deliverables (all contained as Appendices to Volume 3C of the application particulars) including:

- **Step 3:** *Onshore Constraints Report April 2019*, identifying multiple options for converter station sites and landfall locations. The report did not identify route options;

- **Step 3:** *Preferred Options Report August 2019*, identifying a shortlist of converter station sites and landfall locations. Again the report does not identify route options, however it confirms (Section 1.3 of the Step 3 report) that connections will be by way of UGC, and that (Section 3.3.2 of the Step 3 report) it is EirGrid's preference to install the UGC within existing public roads;

- **Step 4A:** *Consultant's Development Options Report November 2019*, identifying an "Emerging Best Performing Option" (EBPO) for the project in Ireland, and for the first time identifying project route options (Section 3 of the Step 4A report). While route sections had been initially identified to inform consideration of the Step 3 site/landfall options, these were considered in more detail in this report in respect of each shortlisted converter station site and landfall location. Appendix C of the Step 4A report identifies all the various route sections considered. Section 3.2.3 of the Step 4A report specifically notes that various potential options had a common convergence in the area of Churchtown, such that the report considered potential HVDC routes from the Churchtown area to each Landfall Location, and HVDC routes from the Churchtown area to each Converter Station Site;

- **Step 4B:** *Consultant's Development Options Report November 2020*, identifying the "Best Performing Option" (BPO) for the proposed onshore development in Ireland, mapped at Appendix B of the Step 4B report, and reproduced at Figure 1.2 below. Of note, the Step 4B report concludes (Section 5.1) that *"this identified BPO is subject to change as studies and assessments are ongoing ….. however, it will form the basis for ongoing design and assessment up to presentation of a proposal for consenting…"*.

The project is now in Step 5 of the Framework process, whereby the BPO forms the focus for technical and environmental assessment (see Figure 1.2). This will culminate with submission of applications for Statutory consent – in Ireland consents will be sought from the Strategic Infrastructure Division (SID) of An Bord Pleanála (onshore element), and from the Department of Housing, Local Government and Heritage (foreshore element).

2.3 Relevant Planning History

The planning history of other similar infrastructure developments is not intended to be exhaustive, but rather is intended to be relevant in terms of considering the proposed development having regard to principles of proper planning and sustainable development. This relates to interconnection, the laying of underground cables (UGC), development at the proposed converter station at the IDA Ballyadam landholding, and development at the existing Knockraha Substation.

2.3.1 East West Interconnector (EWIC)

The SID East West HVDC Interconnector between Ireland and Wales (ABP Ref. PL17.VA0002) was Granted Approval subject to 17 Conditions by ABP in September 2009. EWIC bears many similarities to the Celtic Interconnector in so far as it comprises:

- A HVDC submarine cable within Irish territorial waters and is Exclusive Economic Zone (EEZ);
- A landfall location in Ireland and Wales, where the HVDC submarine circuit comes onshore and terminates at a transition joint bay. In Ireland, the transition joint bay is located at North Beach, Rush, County Dublin;
- An underground onshore HVDC cable (UGC) between the landfall location and the converter station site to convert the electricity from HVDC to HVAC and vice versa. For EWIC this UGC runs primarily along public roads, with some off-road sections between Rush in County Dublin and Woodland in County Meath;
- A converter station and associated electrical infrastructure, on a site of approximately 7ha. located in proximity to the existing Woodland 400kV substation; and,
- A fibre optic link for operational control, communication and telemetry purposes.

In Granting Approval, the Board concluded that:

> *"…the proposed development would not adversely affect the integrity of a European site, seriously injure the amenities of the area or of property in the vicinity of the proposed development or be prejudicial to public health or safety, and would be acceptable in terms of traffic safety and convenience. The proposed development would, therefore, not have adverse significant effects on the environment and would be in accordance with the proper planning and sustainable development of the area".*

2.3.2 North-South Interconnector (NSIC)

The North-South 400kV Interconnector between Ireland and Northern Ireland (ABP Ref. PL02 .VA0017) was Granted Approval in Ireland, subject to 9 Conditions, by ABP in December 2016. In granting permission for the proposed development, the Board concluded that *"…the proposed development would be in accordance with the proper planning and sustainable development of the area".*

The NSIC is a PCI and in Ireland it was confirmed to comprise an SID project.

In February 2017, applications for judicial review (JR) were submitted to the High Court, one of which was subsequently withdrawn by the applicant. In August 2017 the High Court upheld planning approval for the southern element of the NSIC.

In February 2019, the Supreme Court dismissed an appeal and unanimously upheld the decision to grant planning consent. This brought the legal challenges to An Bord Pleanála's planning consent to a conclusion in Ireland.

2.3.3 Kilpaddoge to Knockanure 220kV Underground Cable Project, County Kerry

The Kilpaddoge to Knockanure 220kV UGC project concerns an approximately 21km long HVAC link between two existing 220kV substations in County Kerry. Insofar as this project concerns the civil construction of long lengths of high voltage UGC, primarily along the public road, it bears many similarities to the Irish Onshore element of the Celtic Interconnector project – see Chapter 3 of the Ireland Onshore EIAR for more detail on the construction of a UGC. More specifically, the UGC element of the project involves:

- The laying of underground cables in trench of approximately 1.2m in depth and approximately 1.2m in width, primarily along the public road; and,
- The development of numerous joint bays at intervals of approximately 600m – 800m. The joint bays measured approximately 6m by 2.5m by 2.5m in depth and these were surrounded by temporary passing bays, required to realise the joint bay works without requirement for lengthy road closures.

Having regard to the provisions contained in Class 26 and Class 16 of the Planning Act, Kerry County Council made a Statutory Declaration in June 2015 in response to a Declaration Request by EirGrid, and in accordance with Section 5 of the Planning and Development Act 2000 (as amended), that the laying of the UGC development is exempted development (Kerry County Council Reg. Ref. EX371).

The project is now in a mature stage of construction. All ducts and joint bays are now laid in the public road and the road has been reinstated (Figures 2.4 and 2.5). Passing bays have been created and are either in operation where jointing of cable lengths in the public road is now ongoing, or are in place for when such jointing occurs. Traffic management in the form of sensor-controlled traffic lights are in place at joint bay locations (Figures 2.6 and 2.7). Otherwise, there is effectively no above ground visibility of the UGC project.

It is considered that this will comprise the same scenario for the construction of the UGC elements of the proposed Irish Onshore development, and confirm a relatively modest and temporary local impact arising from the UGC development.

Figure 2.4: Reinstated public road at a joint bay location (darker tarmac on road) with associated fibre optic link box and passing bay, currently dormant and bermed with stone prior to jointing works at the joint bay

Figure 2.5: Reinstated local public road following the laying of UGC

Figure 2.6: Sensor controlled traffic management at operational joint bay location

Figure 2.7: Operational joint bay location comprising temporary welfare facilities (green and white cabinet), generator (blue cabinet), jointing bay (white container over joint bay), and associated vehicle. A passing bay allows traffic flow around the joint bay – note natural revegetation of the edge of the passing bay

2.3.4 Amgen Technology Ireland Ltd. (IDA Ballyadam Landholding)

In July 2007, An Bord Pleanála Granted Permission, subject to 23 Conditions, to Amgen Technology Ireland Ltd. for a major pharmaceutical development on the overall approximately 56ha. IDA Ballyadam landholding (ABP Ref. PL04.222364). In summary, key elements of the development included:

- A 6 level multi-storey car park with 1,152 car park spaces;
- A 3-storey bulk manufacturing building and a 2-storey bulk warehouse;
- A 2-storey utilities building, with a single boiler exhaust stack 35m high;
- A utilities yard including a softened water storage / processing area, a fuel storage area, a chemical storage area, a gas storage area, and 12 cooling towers;
- A wastewater treatment plant including a 2-storey wastewater treatment building, tank farm area, and an effluent storage tank;
- Internal access roads, a truck parking area for 20 trucks, and gravelled areas for future buildings; and,
- The development also consisted of amendments to previously permitted site development works under Planning Ref. 06/8898. These included an increase of up to 400mm to the finished ground level of the development area of the site, and amendments to the layout of internal site roads, associated services and landscaping, and to a permitted attenuation / retention pond in the south-west corner of the site.

In granting permission for the site, the Board concluded that:

> *"…Subject to compliance with the conditions set out below, the proposed development would not seriously injure the amenities of the area or of property in the vicinity, would not be prejudicial to public health, would not give rise to an increased risk of flooding at Slatty Pond and would be acceptable in terms of traffic safety and convenience. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area".*

The Inspector's Report, which recommended that the planning authority's decision to grant permission for the development be upheld, noted, *inter alia,* that:

> *"Groundwater vulnerability beneath the site ranges from extreme, where the rock is close to the surface in the southeast portion of the site, to moderate in the western portion of the site. Groundwater levels, encountered in five boreholes in the course of groundwater sampling, suggest that the groundwater flow is from north / northeast to south / southwest...The predicted impacts from the operation of the facility are not considered to be significant, owing to the high level of secondary containment proposed in areas where potentially polluting materials would be stored, e.g. bunds, the fact that process effluent pipelines would be maintained over ground and the high degree of wastewater treatment on site" (p14).*

Following this Grant of Permission, the converter station site and other parts of the overall IDA landholding at Ballyadam have been the subject of significant infrastructural investment

in site development activities. Site servicing works included major site clearance and grading, and other ground works, as well as the development of internal roads, water, wastewater, and surface water drainage works.

Permitted development in the vicinity of the proposed converter station site also included construction of an enclosed 110kV indoor substation and boundary fence in 2007 (Planning Ref: 06/10555), to provide electricity to the Amgen Development.

However, in November 2009, Amgen Technology Ireland Ltd. announced that the project was on hold indefinitely following global restructuring of its operations. Works ceased on site, which has subsequently contributed to its brownfield appearance.

2.3.5 Knockraha Substation

The proposed connection point is at the eastern end of the existing Knockraha 220kV station. The original planning permission for the substation was not able to be obtained following an online search of Cork County Council's planning database, but it is known that it has been operational pre-1995 by reference to OSi othophotography generated in 1995. There have been various permissions since at the substation, including:-

- installation of a waste treatment system (Planning Ref: 03/397);
- 36m high communication structures, antennae, equipment cabins and fencing (Planning Ref: 03/1528);
- installation of a 220kV / 110 kV transformer with associated bund wall and noise attenuation barriers, including 4 no. gantry structures, voltage transformers, circuit breakers, 2 no. control cabins and associated site works (Planning Ref: 08/7684).
- In October 2014, EirGrid were granted permission for an extension to the 220kV substation busbar including the installation of electrical apparatus and 6 no 24m lighting masts (Cork County Council Planning Ref. 13/6402 / An Bord Pleanála Ref. PL04.244030). This includes the area of the planned connection works to facilitate connection of the Celtic Interconnector project to the Irish grid.

2.3.6 Youghal to Midleton Greenway - Part 8 Planning Application

The Youghal to Midleton Greenway[7] secured consent in January 2019. It overlaps with the proposed development at 3 locations, namely in the townland of Dysart near Ballyvergan East, in the townland of Moanlahan near Killeagh and in the townland of Roxborough.

The Greenway, currently under construction by Cork County Council, will extend between Midleton Train Station and the disused Youghal Train Station predominantly along the corridor of the disused railway over a distance of approximately 23km. The route of the greenway is provided in Figure 2.8. This development is also addressed in respect of Consideration of Alternatives at Chapter 1 of Volume 3C Part 2 of the Ireland Onshore EIAR.

[7] Greenways are off-road routes for walkers, cyclists and other non-motorised transport which are often created in Ireland from abandoned Irish rail networks.

Figure 2.8: Route of Midleton to Youghal Greenway (Source: Extract from Location Map Drawing No.SC-17-075-01 https://www.corkcoco.ie/sites/default/files/2018-09/Scheme%20Drawings.pdf)

2.4 Relevant Planned Developments

Having regard to the Celtic Interconnector Project, the following developments are understood to be planned in the short to medium-term future; however, they are currently at an optioneering or preliminary design phase. In all instances, EirGrid has engaged with developers in so far as it understands there to be projects in the pre-planning phase that may have relevance to the proposed development.

2.4.1 Future Neighbouring Development at IDA's Landholding at Ballyadam

The proposed converter station element of the proposed development is located within the north-eastern portion of IDA's overall landholding at Ballyadam. The development potential of the site is promoted in accordance with its industrial zoning under the Cobh Municipal District Local Area Plan 2017 (see Section 4 of this report).

The site immediately east of the converter station site has been separately identified for development by ESB Networks as an electricity distribution substation, unrelated to the Celtic Interconnector project. As such, in the future, this portion of the overall landholding could comprise a concentration of strategic electricity infrastructure, with the remainder of the landholding available for other industrial and employment generating development.

EirGrid continue to consult with ESB Networks and the IDA in relation to the future development of the wider IDA landholding.

2.4.2 N25 Carrigtwohill Midleton Infrastructure Improvement Scheme

The N25 Carrigtwohill Midleton Infrastructure Improvement Scheme has been proposed for several years by Cork County Council in conjunction with Transport Infrastructure Ireland (TII). A route protection corridor is provided for this development within the current Cork County Development Plan 2014. The project is included in Project Ireland 2040 and the National Development Plan 2018 – 2027. The purpose of the scheme is to provide an improved transport infrastructure on the N25 between Carrigtwohill and Midleton.

The existing 5km dual carriageway section of the N25 from Carrigtwohill to Midleton is of a lower standard than the rest of the N25 from Cork to Carrigtwohill. There are numerous at grade junctions, median crossing points and direct access points. The benefits of the scheme will include reduced congestion, quicker journey times, improved journey reliability and comfort and significantly higher levels of road safety on the route.

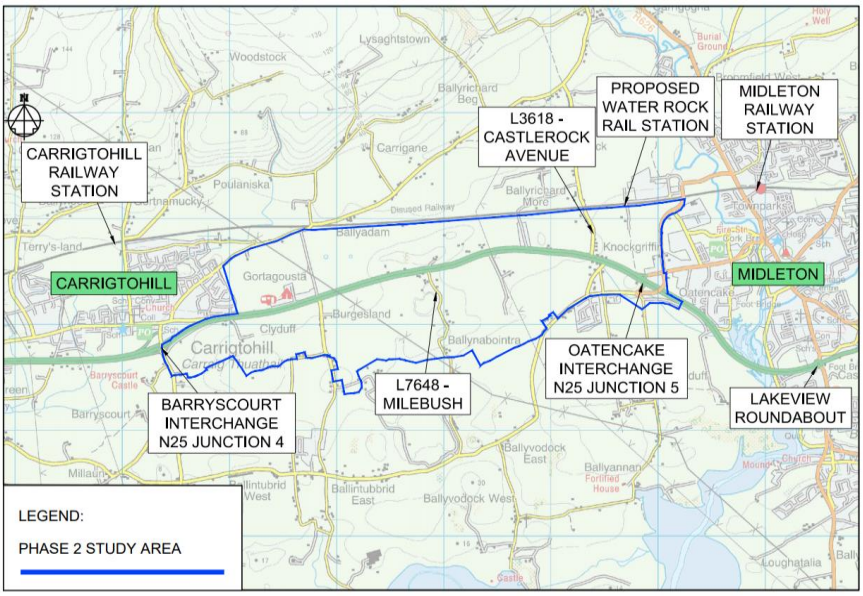

Figure 2.9: N25 Improvement Scheme – Phase 2 Study Area (Source: Public Consultation Brochure - October 2020)

The project is currently at Phase 2 - Option Selection, with four route options provided for the initial public consultation including the provision of a full dumb-bell interchange at Ballyadam, with associated slip roads, which would require to be constructed on the southern portion of the overall landholding. The Phase 2 Study Area (Ref. Figure 2.6) overlaps with the proposed development. The preferred route option will be selected at the completion of this phase. Detailed design will follow during Phase 3 of this road improvement project, including detailed environmental evaluation prior to lodging an application to An Bord Pleanála. This planned development is also addressed in respect of Consideration of Alternatives at Chapter 1 of Volume 3C Part 2 of the Ireland Onshore EIAR.

Comment [A1]: Any relevant Updates to be captured as part of the Final Application File

2.4.3 Water Rock Urban Expansion Area, West of Midleton

Water Rock Urban Expansion Area is identified within Cork County Development Plan 2014 as an area of targeted residential and economic growth within Midleton, which will facilitate a quantum housing capacity of approximately 2,500 residential units upon completion. There is a requirement for Irish Water to provide water and wastewater services to facilitate this planned expansion of Midleton.

At present the Midleton Wastewater Treatment Plant (WWTP) is operating at capacity and is unable to accept addition wastewater flows. In order to address the capacity issues at Midleton WWTP, it is proposed to upgrade the treatment processes at the WWTP while also reducing hydraulic loading through the transfer of foul flows to Carrigtwohill WWTP. This will require rising main sewer connection between each WWTP.

It is understood that public roads will be utilised where possible for the sewer connections, with a sewer connection running north of the Ballyadam converter station site. EirGrid continues to consult with Irish Water in relation to the proximity of these works to a portion of the HVDC underground cable route.

2.4.4 Midleton Flood Relief Scheme

Cork County Council in conjunction with the Office of Public Works is developing the Midleton Flood Relief Scheme, which is currently at the options appraisal stage. The scheme seeks to address all four sources of flood risk - fluvial, tidal, groundwater and pluvial flooding while minimising risks to the existing community, social amenity, environment and landscape character.

The only proposed element of the Flood Relief Scheme which is in close proximity to the proposed development is the potential bridge replacement proposed for Area 1: Tir Cluain to Willowbank Options. Under Option 1A: Conveyance Improvements and Direct Defences, a small road bridge which crosses the Glenathonacash stream will be replaced, north of the junction of the R626 and the L7822 to the northeast of Tír Cluain. The cable route runs approximately 10m north of this road bridge. It is noted that construction commencement for the Flood Relief Scheme is programmed for 2023.

2.5 Conclusion

The proposed development has a number of similarities to other significant electricity projects such as EWIC and the Kilpaddoge-Knockanure 220 kV UGC project in North Kerry. Both of these projects concern underground electrical transmission infrastructure over long lengths of UGC. In addition, EWIC included provision of a converter station site.

The Kilpaddoge to Knockanure UGC – of 21km in length - was Declared to constitute exempted development The EWIC project was Granted Approval, following the conclusion of ABP that it would not seriously injure the amenities of the area or of property in the vicinity of the proposed development, nor would be prejudicial to public health or safety, nor would

have adverse significant effects on the environment, and that it would be in accordance with the proper planning and sustainable development of the area.

The most significant planning history pertaining to the converter station site at Ballyadam is that Amgen Technology Ireland Ltd. secured consent for a significant development on the overall landholding (including the site of the proposed converter station) which included a 6 level multi-story car park, a 3-storey bulk manufacturing building and 35m high boiler exhaust stack. Thus, development of large and visually prominent buildings and structures on the landholding has previously been permitted. It is noted that the proposed converter station constitutes the only large building on this landholding.

The proposed development is likely to interface with other planned infrastructure developments in the future, most notably the future development of the overall IDA landholding, the N25 Carrigtwohill-Midleton road infrastructure improvement scheme – potentially including a major grade-separated interchange on the southern portion of the overall landholding.

The interface of development of the proposed Irish Onshore element of the Celtic Interconnector project with other proposed wastewater, electricity, and housing infrastructure projects, and in particular within or using the same public road network, will require careful and ongoing coordination between EirGrid, TII, Irish Water, IDA and Cork County Council. These State Authorities are already well progressed in terms of collaboration and engagement.

3 Legislative Context for the Irish Onshore Proposal

3.1 Introduction

This report has been prepared as part of the consent application for the Ireland Onshore element of the overall planned Celtic Interconnector. As such, this legislative context relates to the land based elements of the project in Ireland only.

3.2 PCI and TEN-E Regulations Context

The TEN-E Regulation lays down rules for the timely development and interoperability of energy networks in European Union Member States and the European Economic Area. A 'Project of Common Interest' or PCI is a project that is necessary to implement the energy infrastructure priority corridors and areas set out in Annex I of the TEN-E Regulation and which is part of the Union list of projects of common interest referred to in Article 3 of the TEN-E Regulation. The project must have a significant impact on energy markets and market integration in at least two EU countries, boost competition on energy markets and help the EU's energy security by diversifying sources and integrating more renewables into the market to decarbonise the economy. This designation also recognises its national and European importance and is intended to make project permitting processes more efficient.

The Celtic Interconnector was recognised as a PCI by the European Union in the first list of PCIs published on 13th October 2013 under Delegated Regulation 1391/2013. This list contained 248 projects, which were listed as stand-alone PCI's or clusters of PCIs because of their interdependencies or competing nature. The Celtic Interconnector is listed within Annex to Delegated Regulation 1391/2013 as Priority Corridor Northern Seas Offshore Grid ("NSOG") as *"Project No. 1.6: PCI France – Ireland interconnection between La Martyre (FR) and Great Island or Knockraha (IE)".* The technical information on PCIs accompanying the Delegated Regulation (EU) 2016/89 provides details of the project as per Table 3.1.

Table Error! No text of specified style in document**..1: Technical information on Celtic Interconnector PCI**

Definition in Delegated Act	Details on Location	Promotors	Type / Technology Employed
1.6 France — Ireland interconnection between La Martyre (FR) and Great Island or Knockraha (IE) [currently known as "Celtic Interconnector"]	*Brittany, most probably La Martyre (FR) to future 400 kV substation at Knockraha (IE)*	*EirGrid plc (IE) Réseau de Transport d'Electricité / RTE (FR)*	*A new 320 kV – 500 kV (depending on the technology, to be fixed at a later stage in detailed design studies) HVDC (VSC) subsea connection of approximately 600 km and with a capacity of around 700 MW between Ireland and France (offshore).*

Table Error! No text of specified style in document**..1: Technical information on Celtic Interconnector PCI (Source: https://ec.europa.eu/energy/sites/ener/files/technical_document_3rd_list_with_subheadings.pdf)**

The Celtic Interconnector project's status as a PCI was reconfirmed in each subsequent list; the latest list (fourth publication) was published in October 2019. As a PCI, the Celtic Interconnector also has access to financial support from the Connecting Europe Facility (CEF) – a fund to develop Europe's energy, transport and digital networks.

Comment [A2]: EirGrid to confirm latest PCI list in the Final Application File

3.3 PCI Permit Granting Procedure

To implement the permit granting process, the Irish State has chosen the 'Collaborative' model as the mechanism for issuing of the Comprehensive Decision – as required under the TEN-E Regulation - by the Competent Authority. An Bord Pleanála was designated the Competent Authority (CA) for PCI in December 2013, and is responsible for facilitating and co-ordinating the permit granting process for PCIs.

Figure 3.1 sets out the permit granting process according to the PCI Manual of Procedures in Ireland dated July 2019.

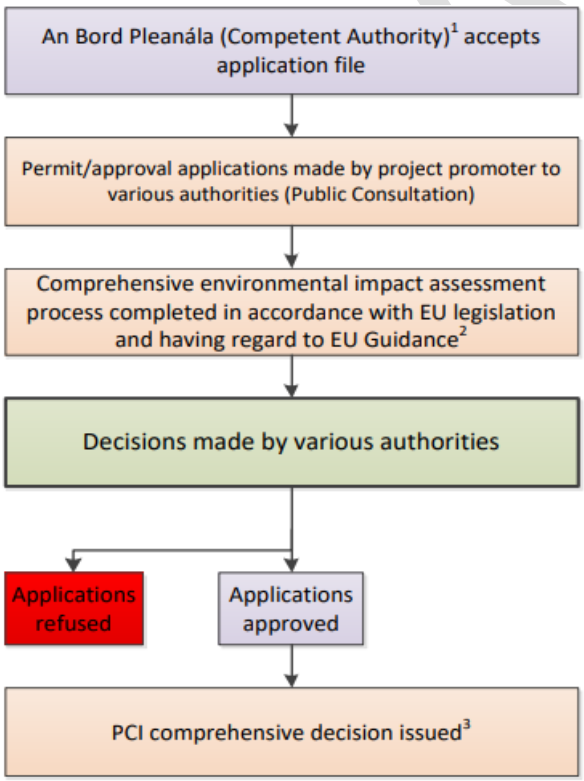

Figure Error! No text of specified style in document.**.1: PCI Granting Process Procedural Overview. Source: PCI Manual of Permit Granting Process Procedures, An Bord Pleanála, 15 July 2019**

The permit granting process as stated under Article 10 of the TEN-E Regulation consists of two procedures:

1. The pre-application procedure; and,
2. The statutory permit granting procedure.

The statutory permit granting procedure covers the period from the date of acceptance of the submitted application file until the comprehensive decision is taken. Article 10.1(b) of the Regulation provides that the period shall not exceed one year and six months. While the combined duration of the pre-application and permit granting procedures should not exceed a period of three years and six months, the TEN-E Regulation does provide that where An Bord Pleanála (PCI CA) considers that one or both of the two procedures (pre-application procedure and statutory permit granting procedure) will not be completed before the set time limits, it may decide before their expiry and on a case by case basis, to extend one or both of these time limits by a maximum of nine months for both procedures combined.

3.3.1 PCI Notification and Acknowledgment

The permit granting process commences on the date of signature of the acknowledgement of the notification by An Bord Pleanála (PCI CA). EirGrid wrote to An Bord Pleanála on 24 December 2018, requesting to enter the Celtic Interconnector into the Permit Granting Process of the TEN-E Regulation. An Bord Pleanála notified EirGrid that the project was considered mature enough to enter the Permit Granting Process on 21 March 2019 – see Appendix X of this Report[8].

Comment [A3]: All Appendices of this report will be included in the Final Application File

However, where two or more Member States are concerned, the start date will be the date of acknowledgement of the last notification to a Member State's National CA. In this case the Marine Management Organisation in its role as the National Competent Authority (NCA) in the UK was the last PCI CA to give its acceptance and therefore 31 January 2020 is the start date of the permit granting process for the purposes of PCI.

3.3.2 Pre-Application Procedures

A number of pre-application requirements that concern this PCI Project have been completed in accordance with the requirements of the TEN-E Regulation. In summary, these comprise:

- Article 9(7): Establish and update a website linked to the Commission website. This is available at https://www.celticinterconnector.eu.

[8] http://www.eirgridgroup.com/site-files/library/EirGrid/Celtic-Interconnector-Project-Letter-from-Competent-Authority-to-EirGrid-Acknowledge-Project-of-Common-Interest-Notification.pdf

- Article 9(3): Within 3 months of Article 10(1)(a), submit Concept of Public Participation (CPP) to 3 CAs in line with Annex VI. This is available at: https://www.eirgridgroup.com/the-grid/projects/celtic-interconnector/related-documents/index.xml and appended to this Report.
- Article 9(4) and 9(5): Carry out at least 1 public consultation within no more than 2 months in each Member State concerned. In addition to other public consultation undertaken by EirGrid in respect of the development of the project, this public consultation occurred in June and August 2020; in the UK this occurred in June and July 2020 and in France this occurred in July 2020.

Comment [A4]: Appendix to be included in Final Application File

- Article 10(1)(a): Submit Notification Document to all 3 Competent Authorities (CAs). This is available at: http://www.eirgridgroup.com/site-files/library/EirGrid/Celtic-Interconnector-Project-Pre-Application-Notification-from-EirGrid-to-Competent-Authority.pdf and appended to this Report.

Comment [A5]: Appendix to be included in Final Application File

- Article 10(4)(a): The CA shall identify, in close cooperation with other CAs, the scope of material and level of detail to be submitted. By email correspondence dated 29 March 2021 ABP PCI Unit confirmed that this requirement was completed.
- Article 10(4)(b): The CA shall draw up, in close cooperation with the project promoters and other authorities concerned, a detailed schedule for the permit granting process in line with Annex VI.(2). By email correspondence dated 22 April 2021 ABP PCI Unit confirmed that this requirement was completed.
- Article 10(4)(b): For projects crossing the border between two or more Member States, the CAs of the Member States concerned shall prepare a joint schedule, in which they endeavor to align their timetables. By email correspondence dated 28 April 2021 ABP PCI Unit confirmed that this requirement was completed.
- Article 10(4)(c): The Draft Application File (DAF) shall be submitted to the relevant CAs. This Volume 0 document comprises part of the DAF submission.

The project promoters are targeting that the requirements of Article 10(1)(b), which is the date that the final application file will be accepted, will occur in June 2021.

3.3.3 Statutory Permit Granting Phase

The Statutory Permit Granting Phase commences once the Pre-Application Phase has been completed. It happens after any missing information from the DAF has been identified. It is currently anticipated that the project will be ready to enter this phase in June 2021 and that the PCI Comprehensive Decision will be issued by August 2022.

Comment [A6]: This will be updated for the Final Application File

3.4 SID Context

Where a PCI is also a type of development specified in the Seventh Schedule to the Planning and Development Act 2000 (as amended) or development coming within the ambit of the Act, the project promoter must enter into separate pre-application consultations with An Bord Pleanála (ABP) to ascertain if the proposed development is deemed to be Strategic Infrastructure Development (SID).

During pre-application consultation in accordance with Section 182E of the Act, EirGrid requested the view of ABP as to whether the proposed development comprises Strategic Infrastructure Development (SID). On XX 2021, ABP confirmed that the development was considered to fall under Section 182A of the Act.

Comment [A7]: Date TBC by ABP and text to be updated in advance of submission of Final Application File

In keeping with the *'General Guidance Note'* at the end of the SID application form, the range and format of material required to be submitted with the application and in particular the planning drawings, where practicable, generally accord with the requirements for a planning application as per the Planning and Development Regulations 2001 (as amended).

The preparation of the planning application drawings and other particulars has been informed by pre-application discussions held with ABP. This includes the inclusion of an Environmental Impact Assessment Report (EIAR) and Natura Impact Statement (NIS) in respect of the proposed Irish Onshore development, the separate (for information) EIAR and NIS in respect of the Foreshore Licence application relating to the Ireland Offshore element of the planned Celtic Interconnector project, and a Joint Environmental Report (JER) covering the overall Celtic Interconnector project (see also Section 1 of this report).

3.4.1 Pre-Application Phase

Section 182E of the Planning Act requires that a prospective applicant shall, prior to making an application for approval for electricity transmission development; enter into consultations with the Board in relation to the proposed development. Accordingly, EirGrid lodged a pre-application request under Section 182E of the Planning Act with An Bord Pleanála on 10 October 2018 (Case Reference: PL04.302725). A total of seven pre-application consultations have been held with An Bord Pleanála. A summary of the key issues discussed at each consultation are listed in Table 3.2.

Comment [A8]: To be updated for Final Application File

Table Error! No text of specified style in document.**.2: Pre-application Consultations undertaken with An Bord Pleanála**

No.	Date	Key Matters Discussed
1	07 March 2019	The meeting focused on introducing ABP to the project. EirGrid also outlined the nature of the proposed development and highlighted any matters it wished to receive advice on from the Board.
2	29 April 2019	EirGrid provided ABP with an update on the progress of the project and discussed the grant application to the European Commission.
3	13 September 2019	EirGrid provided ABP with an update on the progress of the project, discussed the possible locations that were being considered for the converter station and the approach to the Environmental Impact Assessment Report.
4	08 September 2020	EirGrid provided ABP with an update on the progress of the project, discussed the possible location options for the converter station and discussed the scope of the SID application.
5	03	EirGrid provided ABP with an update on the progress of the project,

No.	Date	Key Matters Discussed
	November 2020	discussed updated ABP on the Step 4 process.
6	23 February 2021	EirGrid provided ABP with an update on the progress of the project, discussed the contents of the application files and the timelines in the Irish jurisdiction.
7	15 April 2021	EirGrid provided ABP with an update on the progress of the project, the contents of the application files and timelines in the Irish jurisdiction. The meeting focused primarily on certain procedures and process matters.

4 Planning Policy Context

4.1 Introduction

This section of the report summarises the energy and planning policies that support the delivery of the proposed development.

As noted in Section 3, this project has been identified as a Project of Common Interest (PCI) by the European Commission in 2013, with status reaffirmed in 2019. The Celtic Interconnector falls within the scope of the development of electrical interconnectors which is one of the levers for supporting energy transmission in France, in Ireland and in Europe.

4.2 Strategic Need for the Project – EU Law & Policy

4.2.1 Energy Union Package COM(2015) 80 Final

The energy union framework strategy (COM/2015/080) aims to give European Union (EU). consumers, households and businesses, secure, sustainable, competitive and affordable energy. The strategy has five mutually reinforcing and interrelated dimensions, designed to bring greater energy security, sustainability and competitiveness, as outlined below.

- **Energy security, solidarity and trust:** Diversifying Europe's sources of energy and making better, more efficient use of energy produced within the EU;
- **A fully integrated internal energy market:** Using interconnectors which enable energy to flow freely across the EU, without any technical or regulatory barriers. Only then can energy providers freely compete and provide best energy prices;
- **Energy efficiency contributing to moderation of demand**: Consuming less energy in order to reduce pollution and preserve domestic energy sources. This will reduce the EU's need for energy imports;
- **Decarbonising the economy**: Pushing for a global deal for climate change and encouraging private investment in new infrastructure and technologies
- **Research, innovation and competitiveness**: Supporting breakthroughs in low-carbon technologies by coordinating research and helping to finance projects in partnership with the private sector.

The strategy includes a specific minimum interconnection target for electricity at 10% of installed electricity production capacity of the Member States, to be achieved by 2020. However, the subsequent *State of the Energy Union* report[9], published in October 2020, looks at the energy union's contribution to EU's long-term climate goals and takes stock of the progress made on the energy union. The report states that eight EU member states, including Ireland, have failed to me the 10% interconnection target for 2020.

4.2.2 TEN-E Regulation (EU) 347/2013 - Trans-European Networks for Energy

The Treaty on the Functioning of the European Union (TFEU) maintains the trans-European networks (TENs) in order to connect all the regions of the European Union (EU) in the areas of transport, energy and telecommunications. These networks are tools intended to contribute to the growth of the internal market and to employment, while pursuing environmental and sustainable development goals.

The Trans-European Networks for Energy (TEN-E) is a policy that is focused on linking the energy infrastructure of EU countries, identifying Projects of Common Interest (PCIs). PCIs benefit from:-

- Accelerated planning and permit granting
- A single national authority for obtaining permits
- Improved regulatory conditions
- Lower administrative costs due to streamlined environmental assessment processes
- Increased public participation via consultations
- Increased visibility to investors
- The right to apply for funding from the Connecting Europe Facility (CEF)

Interconnection is viewed as critical infrastructure by the EU. As a PCI, the Celtic Interconnector will;

- Promote the movement of electricity flows at a European level: By promoting the movement of electricity in Ireland, in France and throughout all of continental Europe, the Celtic Interconnector will enable European consumers to benefit from a more open electricity market;
- Strengthen the security of supply between countries: The Celtic Interconnector project will strengthen the security of electricity supply between the two countries enabling them to rely on one another in case of unexpected events (technical incidents, spikes in consumption);
- Support the development of a more sustainable electricity mix in France and in Ireland: The Celtic Interconnector will contribute to the European objectives of a low-carbon energy future, promoting the development of other renewable energy sources and their integration into the European electricity system.

[9] Available at https://ec.europa.eu/energy/topics/energy-strategy/energy-union/fifth-report-state-energy-union_en

On 02 October 2019, the European Commission (EC) announced the allocation of a €530.7 million grant from the CEF for the Celtic Interconnector project. As stated by the Irish Commission of Regulation of Utilities (CRU):- *"this grant reflects the project's value in terms of solidarity and security of supply, as well as its contribution to achieving the EU's energy policy objectives. The Celtic Interconnector could help to lower electricity prices, reduce greenhouse gas emissions and provide greater energy security which is of benefit to consumers and stakeholders. The CRU and the French Commission de Régulation de l'Énergie (CRE) welcome the grant decision and confirm their support for the project, as expressed in the joint decision of 25 April 2019*."

As detailed in Ireland's *National Policy Statement on Electricity Interconnection*[10] (see Section 4.3.1 below), EU energy policy contains a core principle of increasing interconnection to complete the Internal Energy Market. The Market is to be completed by harmonised cross border trading rules and more interconnection. The Celtic Interconnector aligns with this objective.

The Celtic Interconnector continues to be listed within the European network Ten Year Development Plan (TYNDP) portfolio projects. The TYNDP is a long-term plan on how the electricity transmission grid should evolve in Europe to implement the Energy Union strategy. It is based on extensive data collection and analysis, and is flexible enough to accommodate shifting policy landscapes, macroeconomic trends, and technological evolutions.

4.2.3 Compliance with EU Policy

EU energy policy contains a core principle of increasing interconnection to complete the Internal Energy Market. The Market is to be completed by harmonised cross-border trading rules and more interconnection. The Celtic Interconnector helps to achieve the main aims of a borderless electricity market within the EU. Having been identified as a PCI since 2013, the Celtic Interconnector project is a key project aimed at driving this change.

4.3 Strategic Policy Context – National Level

4.3.1 National Policy Statement on Electricity Interconnection (2018)

This Policy Statement, issued in July 2018, details that, although limited interconnections exist, beneficial outcomes have still resulted, particularly with ensuring that wind generation has not been curtailed. The Policy Statement seeks to ensure that Ireland seeks to continue to benefit from the strategic and economic benefits of electricity interconnection while aligning with EU energy targets on interconnection and decarbonisation.

The Policy Statement points to the energy policies which have already been embedded within the national planning policy under the National Planning Framework – Project Ireland 2040[11] (see Section 4.3.2 below). It confirms the importance of interconnectors to support the aims of the National Planning Framework, including the transition to a decarbonised

[10] Available at https://www.gov.ie/en/publication/3e988-national-policy-statement-on-electricity-interconnection/
[11] See https://www.gov.ie/en/campaigns/09022006-project-ireland-2040/

economy, and reports that evidence suggests that savings of €20-€30 million could be achieved within the electricity transmission system.

The Policy Statement acknowledges the need to provide wider benefit to the public in terms of energy cost competitiveness. A diversified energy supply through electricity interconnection can serve as a key enabler of economic growth and competitiveness of Irish business.

As an island nation, Ireland has obvious energy challenges, and it is desirable to diversify electricity sources and supplies. Ireland's import dependency remains high at 69% in 2016.

The balance between the need for interconnector infrastructure and the development of electricity generation within Ireland is discussed. Such projects as the Celtic Interconnector will help Ireland to achieve its EU interconnection target. It is also recognised that interconnectors can alleviate congestion on the transmission system; in this regard, it is noted that the EU's Third Energy Package requires that cross border capacity is not discriminated against in favour of national generation.

4.3.2 Project Ireland 2040 - Our Plan (National Planning Framework)

Project Ireland 2040 – also referred to as the National Planning Framework (hereafter referred to as the NPF), published in February 2018, is a 20-year framework designed to guide public and private investment, to create and promote opportunities for Irish citizens, and to protect and enhance Ireland's built and natural environment. The new framework sets out five strategic actions required to achieve this vision:

- Developing a new region-focused strategy for managing growth;
- Linking this to a new 10-year investment plan, the Project Ireland 2040 National Development Plan 2018-2027;
- Using state lands for certain strategic purposes;
- Supporting this with strengthened, more environmentally focused planning at local level; and
- Backing the framework up in law with an Independent Office of the Planning Regulator.

The NPF notes that the population of Ireland is projected to increase by approximately 1 million people by 2040 to a population of approximately 5.7 million. This growth will place further demand on both the built and natural environment as well as the social and economic fabric of the country. In order to strengthen and facilitate more environmentally focused planning at the local level, the NPF states that future planning and development will need to "*tackle Ireland's higher than average carbon-intensity per capita and enable a national transition to a competitive low carbon, climate resilient and environmentally sustainable economy by 2050, through harnessing our country's prodigious renewable energy potential.*"

As also summarized in Section 1.4 of this report, the NPF states that Ireland's National Energy Policy is focused on three pillars: Sustainability; Security of Supply; and Competitiveness. In line with these principles, the **National Strategic Outcome 8**

(Transition to Sustainable Energy), notes that in creating Ireland's future energy landscape, new energy systems and transmission grids will be necessary to enable a more distributed energy generation which connects established and emerging energy sources, i.e. renewables, to the major sources of demand.

EirGrid's Generation Capacity Statement 2019-2028 states that a key driver for electricity demand in Ireland for the next number of years is the connection of new large energy users, such as data centres. This growing energy demand is recognised within the NPF as it states that improving energy sustainability be a key future growth enabler with regard to population and employment.

To facilitate this, the NPF acknowledges the need to 'Reinforce the distribution and transmission network to facilitate planned growth and distribution of a more renewables focused source of energy across the major demand centres.'

4.3.3 National Marine Planning Framework

Directive 2014/89/EU established a framework for maritime spatial planning, including the preparation and adoption of a National Marine Planning Framework. While not directly relevant to the Ireland Onshore element of the Celtic Interconnector, it is nevertheless important to note that the NMPF will be a parallel document to the NPF and forms part of a new development management system.

The NMPF will set out policies that support a range of marine activities. It provides an overarching framework for decision-making that is consistent, evidence-based and provides sustainable development of maritime areas. All activities within Ireland's maritime area will be assessed in terms of consistency with the objectives of the NMPF.

There are four Transmission Planning Policies within the draft NMPF. The Celtic Interconnector project in Ireland is consistent with the objectives of these policies:

- Transmission Policy 1 – Gas or electricity transmission proposals that maintain or improve the security and diversity of Ireland's energy supply, including interconnectors, should be supported;
- Transmission Policy 2- Proposals for activities that are in or could affect energy transmission proposals in sites held under a permission or that are subject to an ongoing permitting or consenting process for energy transmission proposals should demonstrate that they will in order of preference:

  a) Avoid;

  b) Minimise;

  c) Mitigate adverse impacts; and

  d) If it is not possible to mitigate significant adverse impacts, proposals should state that case for proceeding;

- Transmission Policy 3 - decisions on transmission developments should be informed by consideration of space required for other activities of national importance described in the NMPF;
- Transmission Policy 4 - where possible, opportunities for land-based, coastal infrastructure that is critical to and supports energy transmission should be prioritised in plans and policies.

4.3.4 Government White Paper - Ireland's Transition to a Low Carbon Energy Future 2015-2030

The Government White Paper entitled *Ireland's Transition to a Low Carbon Energy Future 2015-2030*[12] sets out a framework to guide Ireland's energy policy development. The White Paper sets out a framework to guide policy and actions that the Irish Government intends to take in the energy sector up to 2030 and also reaching out to 2050. The framework has been developed in the context of the significant role played by European institutions in determining energy policy, markets and regulation. It also takes account of European and international climate change objectives, in particular the Renewable Energy Directive.

The Energy Vision 2050 established in the White Paper describes a '*radical transformation'* of Ireland's energy system which it is hoped will result in GHG emissions from the energy sector reducing by between 80% and 95%, compared to 1990 levels. This means that the diversification of energy supply during the national transition to a renewable energy system will need to shift away from carbon-intensive fuels such as peat and coal in favour of lower carbon fuels like natural gas.

The White Paper notes that Renewable energy will also play a central role in the transition to low carbon energy. No single renewable energy technology – existing or emerging – will alone enable Ireland to overcome the low carbon challenge. Rather, a diverse range of technologies will be required along the supply chains for electricity, heat and transport.

Onshore wind continues to be the main contributor (18.2% of total generation and 81% of RES-E in 2014). It is a proven technology and Ireland's abundant wind resource means that a wind generator in Ireland generates more electricity than similar installations in other countries. This results in a lower cost of support. Due to the variability of wind conditions, wind generation poses challenges to the operation of electricity grids. In Ireland, these challenges are being addressed by the electricity system operators under their DS3 programme.

In addition to this, of direct relevance to the proposed development, the White Paper acknowledges that an uninterrupted supply of energy is vital to the functioning of Irish society and economy. Thus, adequate infrastructure and the diversification of energy supply which avoids over-dependency on any particular fuel, supplier, route or region is necessary.

[12] Available at https://www.gov.ie/en/publication/550df-the-white-paper-irelands-transition-to-a-low-carbon-energy-future-2015-2030/

4.3.5 EirGrid Strategy 2020-2025 Transform the Power System for Future Generations

EirGrid Group published a five-year Strategy[13] in September 2019, outlining a strategic response to the transition of electricity generation to a sustainable low-carbon future.

EirGrid Group has a unique role in leading the transformation of the All-Ireland electricity system as the operator and developer of the transmission grid on an all-island basis.

The primary goal of the strategy is to support the continued decarbonisation of electricity generation within Ireland in response to the climate crisis. As coal, peat and oil-burning electricity generation is phased out during the period up to 2030 the generation of renewable energy will be pivotal in the significant transformation of the All-Ireland electricity system.

The future operation of the electricity system will be required to be more dynamic and responsive; consequently, improvements to infrastructure are required to consolidate the strength and flexibility of the transmission grid to accommodate for an additional 10,000 megawatts of renewable generation to the electricity system. EirGrid aims to achieve this through using both innovative and proven technologies to ensure the reliability of the electricity system.

The primary goal of the Strategy is supplemented by supporting goals, summarised below:

- Operate, develop and enhance the all-island grid and market.
- The all-island Single Electricity Market is central to ensuring a reliable and competitively priced market for consumers. Over the period of the Strategy continued focus on the optimum operation of the Single Electricity Market to meet predicted demand growth across the island of Ireland will be strengthened.
- Planning for a system which is able to take advantage of future interconnectors from the EirGrid Group and third parties through the preparedness of grid infrastructure, optimising existing assets and development of new infrastructure.
- New infrastructure developments will require comprehensive consultation and engagement with key stakeholders, local communities and landowners.
- Work with partners for positive change.
- A major collaborative programme with ESB networks, NIE networks and neighbouring transmission systems using interconnectors is needed for successful and productive partnerships.
- Developing strategic global partnerships which will enable the delivery of new technology to meet system challenges and the most cost-effective solutions.
- Engage for better outcomes for all.

[13] Available at https://www.eirgridgroup.com/about/strategy-2025/

- EirGrid have identified that the investment in communications to explain the changes and benefits of the transition to carbon-free electricity is a crucial initial step to ensure key stakeholders are invested in the transformation journey.
- Deepen and broaden consultation, and to respond in meaningful and persuasive ways to fears and concerns on new infrastructure.

4.3.5 EirGrid Transmission Development Plan 2019-2028

The Transmission Development Plan (TDP)[14] fulfils EirGrid's statutory obligation to deliver a plan for the development of the Irish transmission network and interconnections in line with the European Network of Transmission System Operators for Electricity. The TDP covers a total of 104 active projects which require funding over the period of the development plan and beyond to address the future needs of the Irish transmission network. The TDP introduces EirGrid's six-step process to determine whether and how the grid is developed.

Comment [A9]: Please note comment in footnote. The Draft TDP 2020-2029 is currently on public display. TBC at the time of submission of the Final Application File if the new TDP is adopted.

The TDP outlines the:

- Drivers of network development;
- Network investment needs; and,
- Projects required to address these needs.

The main drivers for transmission network development are EU policy which seeks continual investment and maintenance of the electricity transmission network. European policy seeks market integration, with any disparity in production and demand areas addressed through the promotion of interconnection between European transmission systems and the enhancement of the network's security of supply. In line with European and national emission targets, renewable energy sources (RES) must be integrated thus the transmission network must be developed to provide for increased RES. The technical drivers for transmission network investment are based upon the changes in demand and generation, changes in the inter-regional power flows and asset conditions.

The Celtic Interconnector is listed as one of four Irish Projects of Common Interest within the TDP aimed at ensuring the security and reliability of electricity supply.

4.3.6 Réseau de Transport d'Electricité (RTE) French Transmission Network Development Plan 2019

While not of direct relevance to the planning policy context for the Ireland Onshore element of the Celtic Interconnector, at a whole of project level it is noted that Réseau de Transport d'Electricité (RTE), the joint Project Promoter, is statutorily responsible for producing a ten-year network development plan for France - Schéma Décennal de Développement du Réseau (SDDR). The SDDR sets out the strategic aims of decisions required to guide infrastructure development over the next 15 years in order to meet customer demand, carbon targets, highlighting the challenges and investment commitments and justifications.

The SDDR is based upon a comparable time frame used in the multi-annual energy programme and sets out the delivery requirements for network.

[14] Available at http://www.eirgridgroup.com/TDP-2019-2028-Final-For-Publication.pdf. The latest TDP is the 2019-2028 Plan which was published in July 2020.

The SDDR 2019[15] acknowledges that the Europeanisation of the power system is required to allow all countries security of supply, and France's historical and current role as an electricity exporter is likely to continue.

The SDDR references the importance of telecommunications to maintain the system's balance and guarantee the reliability of the system's installations, the increase of renewables requires greater accuracy of control to manage variability of production. This rationale has been applied to the Celtic Interconnector with the inclusion of fibre optic cable as an element of the Ireland Onshore and Ireland Offshore elements of the overall project.

One of the public targets which derived from the multi-annual energy programme and the national low-carbon strategy is the doubling of interconnection capacity over the lifetime of the SDDR, increasing from 15GW to 30GW by 2035). This will help to deliver a more diverse power mix within the network that is balanced and sustainable from an economic perspective and which is mostly based on renewables and nuclear power by 2035. The achievement of this target is stated as creating interconnectors at all French borders. These interconnector projects have been prioritised and structured into a coherent industrial and economic programme. The Celtic Interconnector has been included in Batch 2 which seeks to generate a total of 5GW across four interconnector projects.

4.4 Regional Level Policy Framework

4.4.1 Southern Regional Assembly Regional Spatial and Economic Strategy (RSES)

The Regional Spatial and Economic Strategy for the Southern Region[16] (hereafter referred to as the RSES) came into effect on 31st January 2020. The RSES sets out a 12-year strategic regional development framework for the Southern Region and includes Metropolitan Area Strategic Plans (MASPs) to guide the future development of the Region's three main cities and metropolitan areas – Cork, Limerick-Shannon and Waterford.

The primary aim of the RSES is to support and implement Project Ireland 2040 - the National Planning Framework (NPF) and National Development Plan 2018-2027. As the regional tier of the national planning process the RSES seeks to achieve coordination, cohesive and balanced regional development.

The strategic vision of the RSES is as follows:

- Nurture all our places to realise their full potential
- Protect and enhance our environment
- Successfully combat climate change
- Achieve economic prosperity and improved quality of life for all our citizens

[15] Available in English at https://assets.rte-france.com/prod/public/2020-07/Sch%C3%A9ma%20d%C3%A9cennal%20de%20d%C3%A9veloppement%20de%20r%C3%A9seau%202019%20-%20Synth%C3%A8se%20%E2%80%93%20English%20version.pdf
[16] Available at https://www.southernassembly.ie/regional-planning/regional-spatial-and-economic-strategy

- Accommodate expanded growth and development in suitable locations
- Make the Southern Region one of Europe's most creative, innovative, greenest and liveable regions

The RSES acknowledges the region's significant energy generation infrastructure which is of national and regional importance. The Celtic Interconnector is specifically referenced in Chapter 8.2 – Strategic Energy Grid, and notes that the delivery of the project will help facilitate Ireland' transition to a low carbon energy future, and will include fibre optic cable providing the first direct telecommunications link between Ireland and continental Europe.

The RSES supports a safe, secure and reliable system of transmission and distribution of electricity and the successful implementation of Ireland's Grid Development Strategy, Your Grid, Your Tomorrow prepared by EirGrid (see Section 6.3.5 above).

The Celtic Interconnector is specifically supported by Regional Policy Objective (RPO) 223 – International Energy Interconnection Infrastructure.

RPO223 - It is an objective to support the sustainable development of international energy interconnection infrastructure and support the sustainable development (subject to appropriate environmental assessment and the planning process) of the Celtic Interconnector project between Ireland and France from a location in the Region.

The transboundary nature of the Celtic Interconnector project is also supported in RPO220 – Integrated Single Electricity Market (I-SEM) as a project which will ultimately reinforce the energy grid for the region and country as a whole.

RP0220 *– It is an objective to support the Integrated Single Electricity Market (I-SEM) as a key priority for the Region and seeks the sustainable development and reinforcement of the energy grid including grid connection, transboundary networks into and through the Region and between all adjacent Regions subject to appropriate environmental assessment and planning processes.*

In relation to the Cork Metropolitan Area Strategic Plan (MASP), which includes the area of Carrigtwohill, the RSES identifies the IDA Ballyadam landholding (including the proposed site of the Celtic Interconnector Irish Converter Station) as an asset for strategic employment locations with strong foreign direct investment and indigenous enterprises. Cork MASP objectives include:

- To strengthen the role of the Cork Metropolitan Area as an international location of scale, a complement to Dublin and a primary driver of economic and population growth in the Southern Region
- To promote the Cork Metropolitan Area as a cohesive metropolitan employment and property market where population and employment growth is integrated with: (i) the city centre as the primary location at the heart of the metropolitan area and region reinforced by (ii) the continued regeneration, consolidation and infrastructure led growth of the city centre, Cork City Docklands, Tivoli and suburban areas (iii) active land management initiatives to enable future infrastructure led expansion of the city

and suburbs (to be assessed by Core Strategy initiatives) and (iv) the regeneration, consolidation and infrastructure led growth of metropolitan towns and other strategic employment locations in a sustainable manner.

- Any reference to support for all plans, projects, activities and development in the MASP should be considered to refer to 'sustainable development' that shall be subject to appropriate feasibility studies, best practice site/route selection (to consider environmental constraints), environmental assessment including EcIA to support development management and where required, the completion of statutory SEA, EIA and AA processes as appropriate

4.5 Local Level Policy Framework

Local planning policies are relevant considerations in determining the proposed SID application, particularly in providing an understanding of the local issues and helped to define the scope of appropriate mitigation. The subsequent subsections identify relevant local policies adopted by Cork County Council in relation to energy infrastructure policies and land use zoning.

4.5.1 Cork County Development Plan 2014, as extended (including Variation No.1 and No.2)

The statutory development plan for the county supports the upgrade and expansion of the electricity transmission grid. This is outlined in Objective ED 6-1: *Electricity Network*, which states as follows:

- Support and facilitate the sustainable development, upgrade and expansion of the electricity transmission grid, storage and distribution network infrastructure;
- Support the sustainable development of the grid including strategic energy corridors and distribution networks in the region to international standards;
- Facilitate where practical and feasible infrastructure connections to wind farms and other renewable energy sources subject to normal proper planning considerations;
- Proposals for development which would be likely to have a significant effect on nature conservation sites and/or habitats or species of high conservation value will only be approved if it can be ascertained, by means of an Appropriate Assessment or other ecological assessment, that the integrity of these sites will not be adversely affected.

4.5.2 Draft Cork County Development Plan 2022-2028

The recently published Draft Cork County Development Plan 2022-2028 continues to zone the overall IDA Ballyadam landholding for Industrial use.

In addition to a number of general references to the promotion of interconnection, the Draft Plan includes a specific supportive policy regarding the Celtic Interconnector: Policy ET 13.23 states that it is a policy to "*Support the development of the Celtic Interconnector project linking the electricity transmission networks between Ireland and France as identified as a key project under Project Ireland 2040 for security of electricity supply, enhanced competition, and direct access to the EU Internal Energy Market"*. There is also a section devoted to the Celtic Interconnector – specific extracts are set out in Table 4.1.

Table 4.1: Extract from Draft Cork County Development Plan 2022-2028 regarding the Celtic Interconnector

Celtic Interconnector

13.16.4 The Celtic Interconnector is a proposed electrical link, which if built will enable the movement of power between Ireland and France. The Interconnector is supported at Government level under Project Ireland 2040 and in the Regional Spatial & Economic Strategy for the Southern Region. The €1 billion project will connect Ireland's electricity network to France and the EU's Internal Energy Market (post Brexit) via an underwater connection. Once built, its 700 megawatts capacity will power 450,000 households, and help Ireland to switch to 70% renewable energy as set out in the Government's Climate Action Plan.

13.16.5 As part of the feasibility study, the route between the south coast of Ireland (East Cork) and the north-west coast of France have been proposed for the Celtic Interconnector. EirGrid have noted the subsea cables will make landfall at Claycastle Beach close to Youghal. While the Converter station infrastructure is proposed to be located at the IDA site at Ballyadam, near Carrigtohill. The length of the subsea cable would be approximately 500 km. The total length of the interconnector between the two countries would be approximately 575 km and expected to be completed by 2026.

13.16.6 The potential benefits of this large-scale infrastructure project include:

- Ability to import and export 700 MW (megawatts) of electricity, the equivalent of supplying power to around 450,000 homes;
- Enhanced security of supply for Irish electricity users. It will provide Ireland's only direct energy connection to an EU Member State once the United Kingdom leaves the EU.
- Apply downward pressure on the cost of electricity to consumers in Ireland;
- Help facilitate Ireland's transition to a low carbon energy future;
- Provide a direct fibre optic communications link between Ireland and France.

4.5.3 Local Area Plans

The Ireland Onshore element of the Celtic Interconnector project falls within the administrative boundaries of two municipal districts - East Cork and Cobh, each with respective Local Area Plans (LAPs), which are discussed herein.

East Cork Municipal District Local Area Plan 2017
The LAP took effect in August 2017. It sets out a vision of developments for the main towns and villages of the Municipal District including Midleton, Youghal, Castlemartyr and Killeagh. It also sets out a planning strategy and land use zoning for the towns and villages of the Municipal District, with the exception of Midleton and Youghal (their respective Town Development Plans remain the statutory plans until the adoption of the Cork County Development Plan 2022-2028). For clarity, the proposed development does not fall within the boundary of Midleton or Youghal Town Development Plans.

The scope for development within the identified villages seeks to ensure that their rural character is maintained, enhanced and not compromised. As the proposed UGC route will

be laid within public roads outside the core area of these villages, there is no impact arising on the achievement of this objective of the LAP by the proposed development.

Cobh Municipal District Local Area Plan 2017 (including Amendment No.1)

The LAP for Cobh Municipal District also took effect in August 2017. It sets out the detailed planning strategy and land use zoning for the towns and villages of the Municipal District. The existing Knockraha substation site and proposed Ballyadam convertor station sites are both located within the statutory boundary of the Cobh Municipal District Local Area Plan.

The proposed convertor station site is located within an overall 56-hectare IDA landholding at Ballyadam, zoned for industry. This landholding is referenced under specific development objective CT-I-03 and categorised as *"Industrial development"* (see Figure 4.1 below). As stated within Section 3.6.62 of the LAP, the zoned industrial lands at Ballyadam have been identified for industrial uses since the 1996 County Development Plan. The lands are described as a continuing important asset to Carrigtwohill, and it is the intention of Cork County Council to allow for a wider range of industrial uses on the site.

A significant area of lands have been zoned within the LAP for new residential and associated uses to the north and east of Carrigtwohill. The alignment of the Alternating Current (AC) underground cable will extend from the IDA Ballyadam lands along local roads which form the northern boundary of this urban expansion area. This proposed alignment has been identified and discussed with Cork County Council who are leading the planning and development of this urban expansion area. In this regard, specific objectives of the LAP relate both to the development of the urban expansion area, as well as a greenway running parallel to the railway line, and road links serving the development lands:

- CT-U-02: Provision of new link roads to access development lands.
- CT-U-03: Provision of a Greenway to comprise a cycleway and pedestrian pathway.
- CT-U-08: Upgrading of Ballyadam Bridge to accommodate pedestrian and cycling facilities.

The proposed Irish Onshore element of the Celtic Interconnector project will not affect the realisation of these local objectives, nor the development of the urban expansion area.

As shown in Figure 4.2, a route protection corridor has been mapped in the LAP in conjunction with Transport Infrastructure Ireland for the N25 Carrigtwohill Midleton Infrastructure Improvement Scheme, which occurs to the south of the Ballyadam convertor station site. The N25 Scheme is currently at the optioneering stage.

As addressed in the Consideration of Alternatives section of the Ireland Onshore EIAR (Chapter 1 of Volume 3C), the use of this corridor to access the proposed converter station within the IDA Ballyadam landholding was considered but is not proposed, given the planned construction of the separate road improvement project.

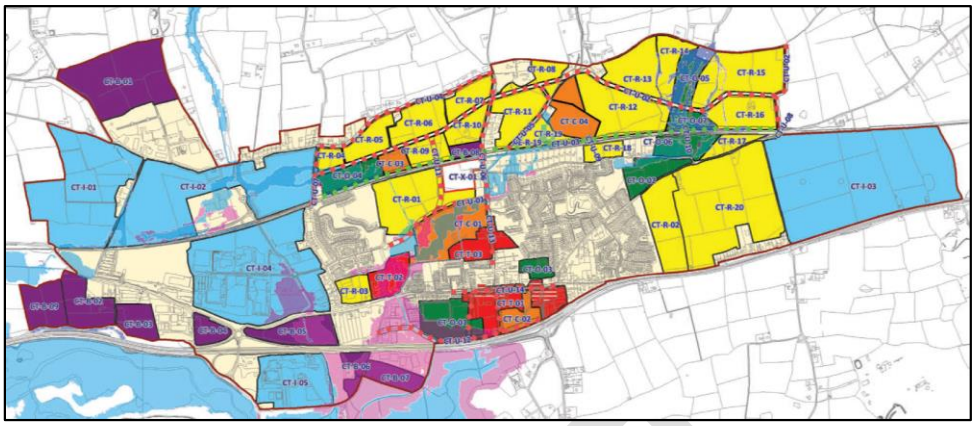

Figure 4.1: Carrigtwohill Land Use Zoning from Cobh Municipal District Local Area Plan 2017

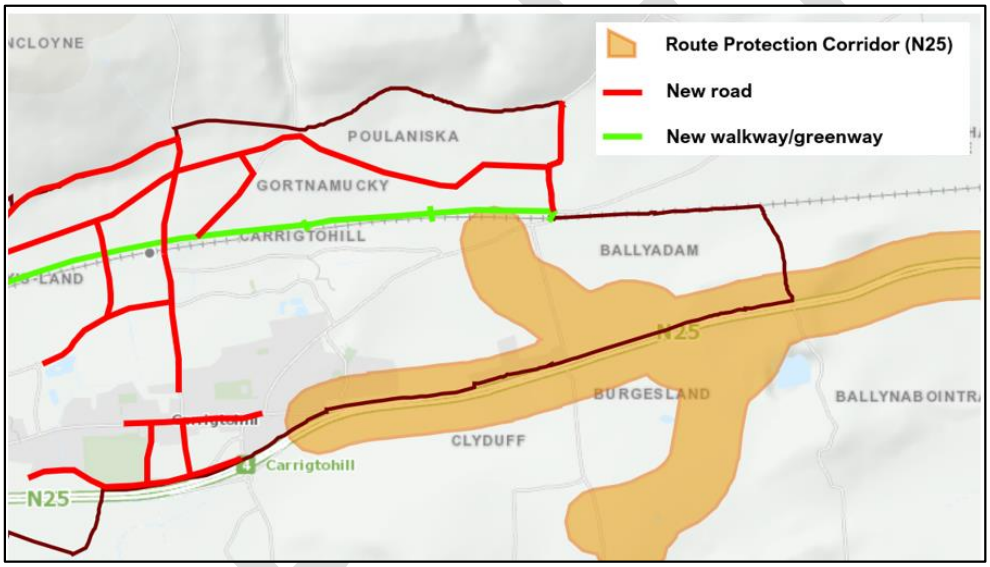

Figure Error! No text of specified style in document.**.2: N25 Route Protection Corridor from Cobh Municipal District Local Area Plan Map Browser**

4.6 Conclusion

Having regard to all of the above, It is considered that the proposed development of the Irish Onshore element of the Celtic Interconnector is in accordance with, and indeed will assist in the delivery of, key strategic energy objectives and land use development policies, set out in European, National, regional, and local documents, statements, policies and plans.

5 Social and Community

5.1 Government and EirGrid Policy on Community Gain since 2012

In 2012, the then Department of Communications, Energy and Natural Resources (DCENR[1]) published *"Government Policy Statement on the Strategic Importance of Transmission and Other Energy Infrastructure*". The Policy Statement provided clear direction on incorporating community gain considerations into major energy infrastructure projects. In particular, the Policy Statement stated that:

"The Government would like to see enhanced co-operation with local authorities on the potential for delivering landscape, biodiversity and civic amenity benefits as part of Grid 25 and other energy infrastructure development. Delivering long lasting benefits to communities is an important way of achieving public acceptability for infrastructure… The Government therefore underlines the appropriateness for the State Companies and energy project developers to examine appropriate means of building community gain considerations into their project budgeting and planning. The Government is therefore fully supportive of a community gain approach in the delivery of energy infrastructure."

In the period following the publication of the Policy Statement EirGrid engaged with the then DCENR, the then Commission for Energy Regulation (CER[3]), the then Department of Environment, Community and Local Government (DECLG[4]) as well as other key stakeholders focusing on the development of a suitable EirGrid community gain strategy. This strategy resulted in the establishment and implementation of a community gain policy from January 2014.

In 2017, the University of Exeter delivered an evaluation report on the EirGrid Pilot Community Fund for the Mullingar-Kinnegad 110kV line. The report drew seven conclusions in relation to governance, local knowledge, boundary setting, pragmatism, stakeholder expectations, evaluation panels and evaluation. These conclusions were accompanied by 24 specific recommendations.

In 2019, EirGrid updated its Community Gain policy to incorporate considerations for underground cables and the phasing of community fund payments which allowed for a community fund to be activated across three phases of a project. The provisions of proximity payments were also amended.

In 2020, a further review of Community Benefit was undertaken in EirGrid to ensure alignment with its new Strategy and wider policy framework.

[1] DCENR is now the Department of Environment, Climate and Communications.(DECC)
[3] The CER is now the Commission for Regulation of Utilities (CRU)
[4] The DECLG is now the Department of Housing, Local Government and Heritage (DHLGH)

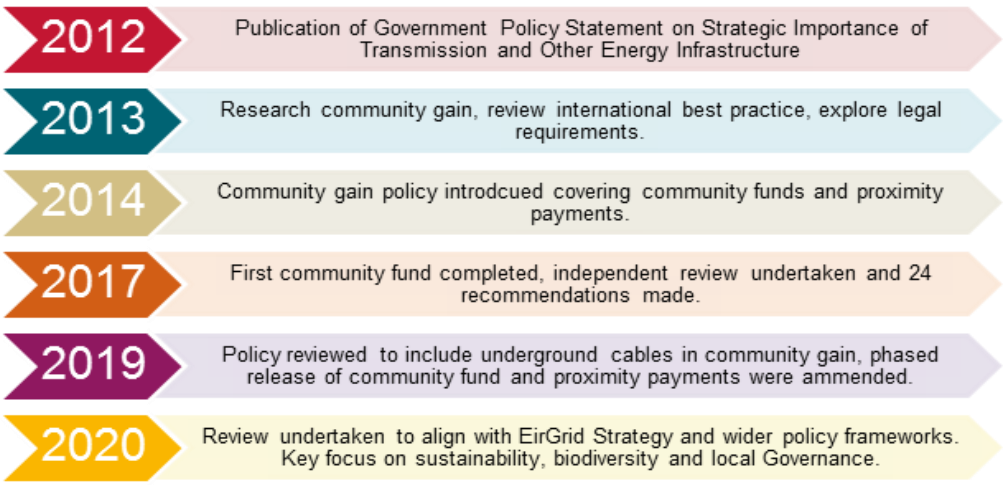

Figure 5.1: Evolution of EirGrid's Approach to Community Benefit, 2012-2020

5.2 An Enhanced Approach to Community Benefit

When EirGrid chooses routes for its linear projects, it tries to create as little disturbance as possible. However, it is acknowledged that this work has an impact on landowners and neighbouring communities, and that the provision of new infrastructure requires local support, co-operation and knowledge. That is why EirGrid will compensate landowners who are directly affected by a project – i.e. accommodating new infrastructure – as well as providing a benefit to local communities when developing new infrastructure.

For the Celtic Interconnector, this means that a community benefit fund scheme of in excess of €2 million will be established if the project goes ahead. Communities across the entire UGC route, landfall location and converter station location will benefit from this. This will ensure that the proposed development will leave a positive legacy on the communities who will facilitate its realisation.

The fund will be distributed in 3 phases – once construction begins, in the middle of construction and once the project is fully energised. EirGrid will work with a local Celtic Community Forum of stakeholders and partners to do this - this is currently being set up.

The fund will focus on 3 priority themes – Community, Sustainability and Biodiversity, in recognition of Ireland's Climate Action Plan and the communities' role in achieving this. Where previously a fund was determined for a project and delivered through a community grants process, the new fund will provide that fund value for each of the 3 priority themes.

6 Planning Appraisal

6.1 Introduction

This section provides the applicant's appraisal of the Celtic Interconnector in order to assist in the determination of the proposed development's consistency with proper and sustainable development.

6.2 Need for the Proposed Development

The need for the project has been outlined in Section 1 of this report. In summary, the proposed Celtic Interconnector will facilitate the movement of electricity between Ireland and France by means of allowing the import and export of electricity via a subsea link. The Celtic Interconnector is being developed in response to European challenges such as the energy transition and the role of energy in the management of climate change.

Identified as a Project of Common Interest (PCI) by the European Union since 2013, the project meets the criteria detailed in Article 4 of the EU Regulation 347/2013 on guidelines for trans-European energy infrastructure. The Celtic Interconnector will provide the first direct link between the electricity systems of Ireland and Continental Europe.

As a PCI (listed as Project Number 1.6 within the Priority corridor for Northern Seas Offshore Grid), the Celtic Interconnector has had continual endorsement at EU level of its strategic importance in order to realise the programme to enhance the energy market across the continent. The proposed development ensures the implementation of obligations under the various EU statements of law and policy referred to in Section 3 and 4 of this report.

6.3 Evaluation of Proposed Development having regard to Planning Policies

The National Policy Statement on Electricity Interconnection (2018) seeks to ensure that Ireland seeks to continue to benefit from the strategic and economic benefits of electricity interconnection while aligning with EU energy targets on interconnection and decarbonisation. The Policy Statement points to the energy policies which have already been embedded within the national planning policy under the National Planning Framework.

The National Planning Framework supports the development of the electricity network to facilitate planned growth and distribution of renewable energy. The Celtic Interconnector project is specifically included in Project 2040: The National Development Plan 2018-2027 in respect of Strategic Outcome 8: Transition to a Low-Carbon and Climate-Resilient Society. It is also included within the current Programme for Government.

The Regional Spatial and Economic Strategy (RSES) for the Southern Region acknowledges the Celtic Interconnector as a significant energy generation infrastructure project of national and regional importance.

The Cork County Development Plan supports the sustainable development, upgrade and expansion of the electricity transmission grid, storage and distribution network infrastructure.

The proposed Celtic Interconnector development is therefore supported by national, regional and local planning policy and objectives, as set out in Section 4 of this Report.

6.4 Consideration of Alternatives

The Irish onshore elements of the Celtic interconnector project have been developed in accordance with EirGrid's bespoke six-step Framework for Grid Development. This framework reflects EirGrid's values and approach to grid development. In accordance with EirGrid's Framework, a detailed analysis of feedback received has been central to the grid development process informing the identification of the Irish onshore elements of the Celtic interconnector project.

As set out in considerable detail in Chapter 1 of Volume 3C (Ireland Onshore) of the EIAR for the proposed development, the project development process has considered a range of alternatives in respect of the planned interconnector in Ireland. These include coastal landfall locations, converter station locations, connection point locations and cable routing alternatives. Decisions made in the context of consideration of these alternatives ultimately identified the Best Performing Option for the proposed onshore development (Step 4), and subsequently the proposed development now before An Bord Pleanála (Step 5).

In particular, subsequent to announcement of the Best Performing Option, following engagement with the communities of Killeagh and Castlemartyr, EirGrid confirmed off-road local routing options for the DC cable at these villages in preference to laying the cable within their main streets. In addition, in response to engagement with the community at Churchtown, west of Castlemartyr, EirGrid undertook a Review of Routing Options in that vicinity, including a comparative evaluation of those various options. This Review concluded that the on-road option in this locality performs best of the options considered.

The proposed design and location of the onshore Celtic Interconnector development is considered by EirGrid to comprise the best balance between Technical, Environmental, Economic, Socio-Economic and Deliverability criteria.

The Do-Nothing scenario has also been considered for each technical chapter of the EIAR. Non-implementation of the Celtic Interconnector project would mean foregoing its benefits and slowing down the development of renewable energy required to combat climate change and reduced security of supply and isolating Ireland from the EU energy market.

6.5 Environmental Impact Assessment Report (EIAR)

This application for approval includes an EIAR prepared in accordance with the requirements of EU and Irish national law, policy and practice, including Annex IV of the codified EIA Directive, and Schedule 6 of the Planning and Development Regulations 2001 as amended.

Full details and a Non-Technical Summary are provided in Volume 3 of the application documentation.

This project is to be realised via an Engineering, Procurement and Construction (EPC) contract. EPC contracts, which are sometimes called turnkey construction contracts, require the contractor to coordinate all detailed design, procurement and construction work and to ensure that the whole project is completed as required and in time. EirGrid intends to procure the detailed design and construction of the Celtic Interconnector Project via a number of EPC contracts.

Arising from this, the planning process facilitates EirGrid in adopting a general arrangement / project design envelope approach to securing consent for the proposed development. In so doing, all environmental assessments that have informed the proposal represent a reasonable worst-case scenario. This approach ensures that a worst-case scenario is assessed from an environmental perspective but that innovation and value engineering is possible within this parameter. It also ensures that the approach to the overall development is a precautionary one but with some allowance being possible if a lesser impact option is possible when the project is going through the detailed design phase.

6.6 Natura Impact Statement (NIS)

This application for approval includes a Natura Impact Statement (NIS) prepared in accordance with the requirements of EU and Irish national law, policy and practice. Full details are provided in Volume 6A of the application documentation.

In summary, the mitigation measures detailed in Section 3.6 of the Onshore NIS will ensure that no adverse effects on the integrity of any European sites in light of the site's conservation objectives. Based on the assessment of the Proposed Development alone and in combination with other projects and plans, including the implementation of mitigation measures, it can be concluded that no adverse effects on the integrity of any European sites will arise, in view of the site's conservation objectives.

6.7 Other Matters

6.7.1 Laying of Underground Cables

The laying of underground cables (UGC) is a standard construction technique undertaken by a range of utility and other services providers. This is addressed in some detail in Chapter 3 of the Ireland Onshore EIAR, comprising Volume 3C of the consent application submission.

On public roads, traffic control measures will be implemented as appropriate, including road diversions, closures and stop / go traffic management. Joint bays (underground chambers) are used to pull various lengths of UGC through pre-installed ducts and to connect ("joint") together those lengths of UGC into a single overall circuit. Off-road passing bays, constructed adjacent to a joint bay, facilitates the through movement of traffic. The road will be fully reinstated following the laying of the UGC and associated infrastructure.

Section 2 of this report, in respect of Planning History, also discusses matters of construction and reinstatement of the current EirGrid / ESB Networks UGC project between Kilpaddoge and Knockanure substations in North Kerry. The accompanying images in that Section confirm the relatively modest extent of development involved in construction, the successful routine implementation of traffic management measures in particular at joint bays, and the standard of road reinstatement. This approach and standard is entirely similar to that which will occur with the Irish Onshore element of the Celtic Interconnector project.

Both EirGrid and the appointed cable laying contractor will have dedicated land and community liaison officers to provide advance notice of works to affected communities and landowners, and to address any queries or concerns arising.

6.7.2 Other Construction

Chapters 2 and 3 of the EIAR Volume 3C1 describe in more detail the various proposed Ireland Onshore elements of the Celtic Interconnector. In addition to the laying of UGC, there are three primary areas of construction – the landfall area at Claycastle Beach, the converter station at Ballyadam, and the connection point at the existing ESB Knockraha 220 kV substation. These will comprise construction sites for the purposes of health and safety and construction management.

Of these three sites, Claycastle Beach is the only one that currently has public access. The planned Transition Joint Bay (TJB) is proposed to be located on lands to the north and north-west of the existing public car park, and thus can be appropriately fenced off. The trenching of the subsea cable up to the TJB will require temporary exclusion of public access to parts of the beach and the car park – the extent and duration of such exclusion is dependent upon the cable laying option selected. However, this will be appropriately managed through the provision of temporary and localised pedestrian access and diversion routes above the beach, associated signage, as well as adequate and appropriate community liaison. Overall, it is considered that such necessary temporary impact is proportionate to the provision of this major Strategic Infrastructure Development project.

At Ballyadam, the converter station site is located entirely within a larger landholding zoned for industrial development, though currently undeveloped. There is no public access into or across the site, although a number of dwellings sited on public roads in proximity to the landholding face into the site. Construction management and access will be carefully controlled on this site.

From a planning perspective, this element of the proposed development involves the construction of a large industrial-style building (and associated development), on zoned industrial lands within an area that is planned to evolve into a major industrial and employment center. In addition, major new support infrastructure is also planned within this landholding, including a separate ESB substation adjacent to the converter station site, a grade-separated interchange at the southern boundary of the landholding as part of a major upgrade of the N25 road corridor, and a new and/or upgraded local road network within and at the western boundary of the landholding. As such, the converter station will form one element of a planned profound evolution of this overall landholding.

At Knockraha Substation, the proposed connection of the Celtic Interconnector onto the grid network will require new equipment and apparatus within the existing station. From a visual and other environmental perspective, this will have the appearance and function of other long-established form and function at the substation. The planned development occurs at the south-eastern part of the recently extended substation, such that it is at a furthest point from the various dwellings that occur along the local road to the west of the substation. The planned new equipment will not be visible from these dwellings or from Knockraha Village, to the north-west of the substation. Moreover, a current separate programme of screen planting and other environmental measures at the existing substation will also mitigate any potential impact of the planned new equipment on sensitive receptors in the area, in particular.

6.7.3 Electromagnetic Fields (EMF)

The issue of EMF arising from the proposed electrical infrastructure is addressed in detail at Chapter 4 of the Ireland Onshore EIAR – Volume 3C.

In summary, to avoid any potential public risk in close proximity to electrical infrastructure, national and international health and regulatory authorities have recommended exposure limits for EMF. It is EirGrid's policy to design and operate the electricity transmission system such that these limits are not exceeded. This will also be the case in respect of the proposed development.

6.7.4 Transboundary Impact

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Comment [A10]: NB: To be completed following completion of Transboundary Screening process as per the Record of the 7th meeting of the prospective applicant with the SID of ABP on 15th April 2021.

6.7.5 The Jurisdictional Boundary of the Ireland Onshore Proposed Development

The jurisdiction of An Bord Pleanála SID in respect of the Ireland Onshore element of the overall Celtic Interconnector project is the High Water Mark (HWM).

As per Figure 6.1 below, there is some discrepancy in this regard at the landfall area at Claycastle Beach; a HWM, based on OSI 25" series mapping (1888-1913) is shown as a yellow line that currently extends over the existing car park at Claycastle Beach, suggesting that there may have been some subsequent historic land reclamation, or simply an historical

administrative error. The pink line confirms a HWM using OSI data from 2020; this equates more reasonably with the waterline on the beach.

For the avoidance of doubt, the presumed jurisdiction of An Bord Pleanála SID is the 2020 HWM, and this equates to the extent of the red line of the application boundary on the planning drawings, the description of the development in the Public Notices, and the extent of the proposed development comprising the subject of the EIAR and NIS.

Separately the application for a Foreshore Licence being submitted in parallel to the Department of Housing Local Government and Heritage (DHLGH) extends to the older HWM deriving from the OSI 25" series mapping.

The Board may wish to confirm the jurisdictional boundary of the Ireland Onshore proposed development as part of its decision-making in respect of the application submission. In either scenario, the proposed development has been fully described in the public notices, and addressed in the accompanying statutory particulars.

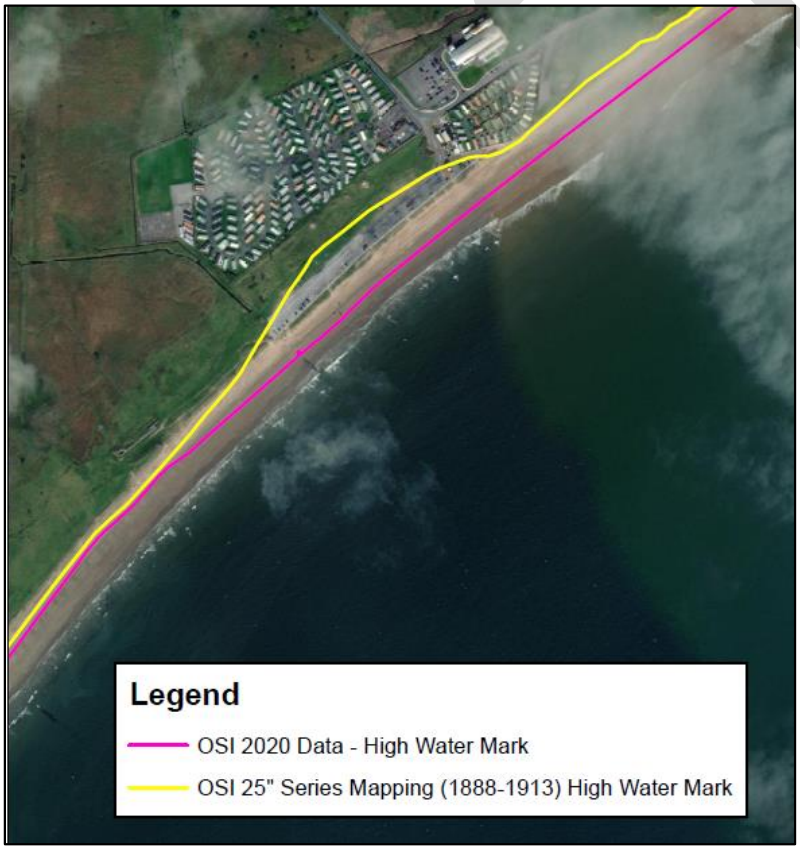

Figure 6.1: Aerial view of the area of Claycastle Beach identifying an older (Yellow) and more recent (Pink) High Water Mark (HWM), both deriving from official OSI data

7 Conclusion

Having regard to the following:

- The requirements of EU energy law and energy policy, and in particular the designation of the Celtic Interconnector Project as a Project of Common Interest pursuant to EC Regulation No.347/2013;
- The provisions of Project Ireland 2040 – the National Planning Framework;
- The provisions of the National Policy Statement on Electricity Interconnection (2018);
- The provisions of the Government White Paper - Ireland's Transition to a Low Carbon Energy Future 2015-2030;
- The provisions of the Southern Regional Assembly Regional Spatial and Economic Strategy (RSES) in respect of electricity infrastructure and in specific respect of the Celtic Interconnector project (2020);
- The provisions of the Cork County Development Plan 2014 as varied, and the Draft Cork County Development Plan 2021;
- The provisions of the Cobh and Midleton Municipal District Local Area Plans;
- The stated need for, and benefits of, the proposed development, namely:
  - Provide competition to the electricity market to the benefit of the Irish consumer,
  - Help Ireland to transition to a low carbon energy future,
  - Facilitate increased levels of renewable energy within the Irish and European electricity system,
  - Enhance the security of supply to Ireland,
  - Provide a direct telecommunication link to the European continent,
- The nature, scale and location of the proposed development, primarily as an underground cable (UGC) and associated infrastructure development, and including the provision of industrial-style building and infrastructure on lands zoned for industrial development;
- The nature of the receiving environment, including the nature of the public road network along which the UGC is proposed to be laid, the pattern of development in the area, and the nature of the landscape including any specific conservation and amenity designations along or in proximity to the proposed development;
- The consideration of alternatives for the design and routing/siting of the proposed development;
- Submissions and other input and advices received from statutory and non-statutory stakeholders during the project development process including the Strategic Infrastructure Division (SID) of An Bord Pleanála and Cork County Council;
- The documentation prepared for the application for Statutory Approval, including the Environmental Impact Assessment Report (EIAR) and Natura Impact Statement (NIS);

It is considered by EirGrid that, subject to compliance with the mitigation measures set out in the NIS and the EIAR, the proposed development:

- Would be in accordance with National policies and guidelines and with regional and local development plan policy;
- Would not seriously injure the amenities of the area or of property in the vicinity;
- Would not seriously injure the visual or recreational amenities of the area;
- Would not be prejudicial to public health or safety;
- Would not detract from the character or setting of features of architectural or archaeological heritage or the cultural heritage of the area;
- Would not seriously injure the biodiversity in the area; and,
- Would be acceptable in terms of traffic safety and convenience.

Having regard to the above, it is concluded by EirGrid that the proposed development would, therefore be in accordance with the proper planning and sustainable development of the area.

Appendices